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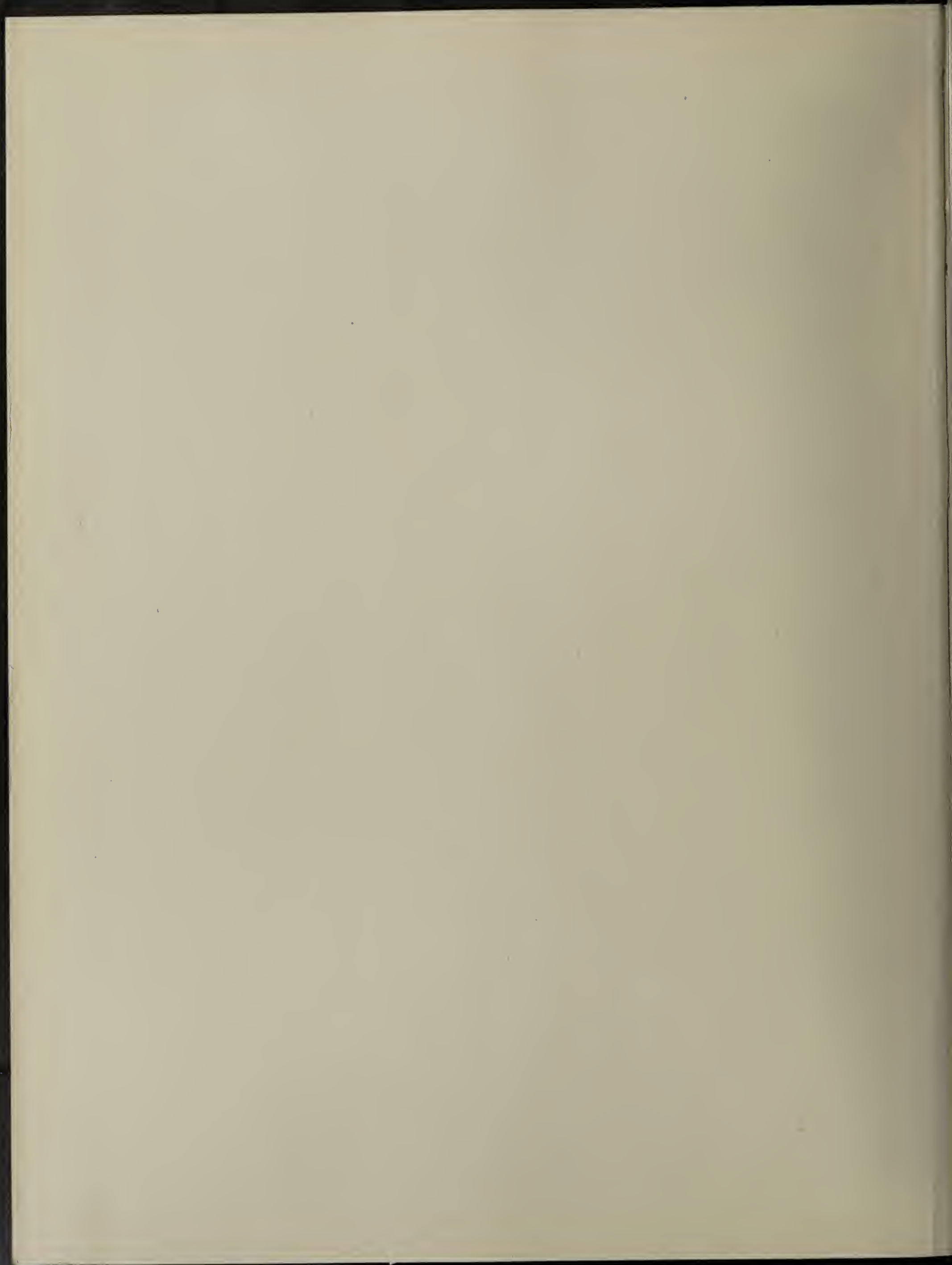
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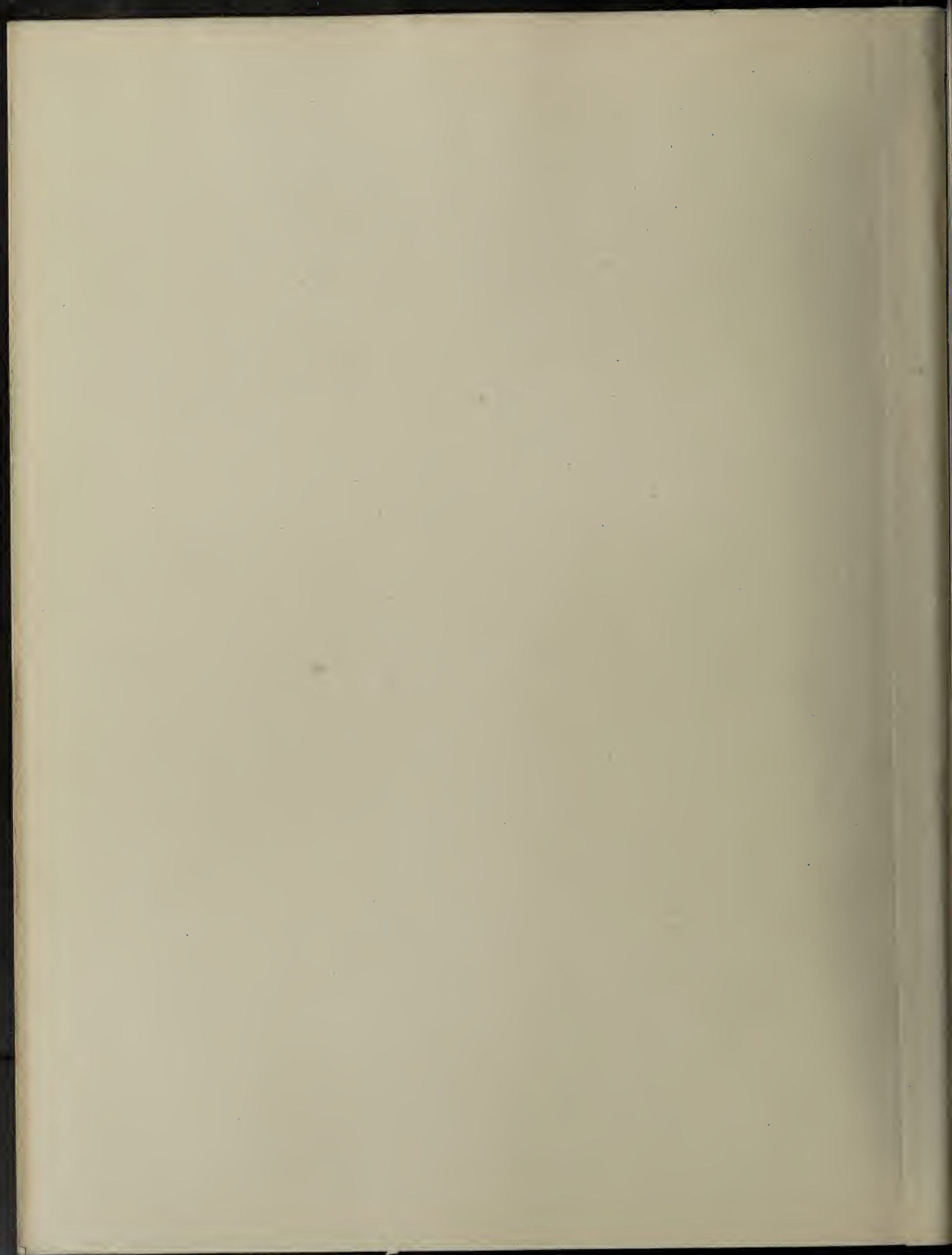
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THE AMERICAN FOOD JOURNAL



Vol. III No. 1

CHICAGO, JANUARY 15, 1908

10c. Per Copy
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CHICAGO, JANUARY 2, 1908

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THE STATE PURE FOOD LAW IN ITS RELATION TO THE FARMER

By R. M. WASHBURN, Missouri State Dairy and Food Commissioner

(A talk given December 5, 1907, before the State Board of Horticulture)

The 44th general assembly of Missouri passed a law regarding the purity and truthful labeling of foods which will be far reaching in its effect. This law is intended primarily to be in the interests of the consumer and this certainly includes all, for no matter what a man's religion, politics, nationality or occupation, he is interested in the subject of foods. The farmer's table will be far less affected than will that of his city cousin who pastures the year around in the grocery store, because a very large per cent of the food on the farmers board is produced and preserved by himself and family. It usually possesses the acme of purity and wholesomeness.

EFFECT WHEN BUYING.—When buying food for the table the farmer will be affected just as the city man will be affected, in that under the new law he will obtain as a whole, purer food, that is, food with less adulterations. Many years of red hot competition controlled only by the commercial conscience, which can never be trusted, has brought about a truly deplorable state of affairs. There is not one single article of food known in this country which is not in some way at some time adulterated. A few of these adulterations have been harmful. The majority are not injurious. They only deceive and rob. Better measure will also be obtained under the law. Short weights and short measures have been a popular method of competing. Hundreds of sacks of flour have been weighed by the state's inspectors and many, even those of some of the most reputable firms, have been found from one to four pounds short on the sack. Pound packages of butter weighing from 15 to 15½ ozs., and crackers—let's not talk about them. They are not sold by weight, they are sold by the package at so much each. The quantity of food obtained for the money is ridiculously small. The same

with breakfast foods. With truthful labeling the consumer may know what he is eating. If he prefer cheap adulterated foods to the higher priced pure article, he has his choice. The price of foods has increased very materially since the National Pure Food Law was passed, but the claim that the price has increased because of the law is poorly founded, for have not other articles, such as wagons, railroad rails, lumber and nails, farm machinery and horseshoes, and other non-edible articles not also raised in price? The law has already driven from the market most of the cheaper grades of food, such as "strawberry jam" composed of the following ingredients: apple juice, glucose, coal tar color, artificial sweetener, chemical flavor and grass seed. There is little sale for such concoctions though they be harmless in their effect. Cattle feeds have been and are still to some extent adulterated. Bran mixed with corn cobs and oat hulls until it has less than one-half its supposed feeding value, has been found on the Missouri market. Cotton seed meal in which the hulls, finely ground have been mixed; oil meal containing all manner of weed seeds, especially wild mustard, is not particularly uncommon. Our pure food law covers the feed of animals as well as that of man, and I shall make it a part of my business to rid the market of these exasperating and contemptible frauds as soon as possible.

EFFECT WHEN SELLING.—The removal from the market of bogus jellies and jams will undoubtedly increase the demand and probably also the price of fruits, such as strawberries, raspberries, blackberries, etc. The market will also strengthen a little on apples though not to any great extent. But the market for pure apple vinegar of a standard grade should be increased materially! At the present time about

90% of the vinegar sold in Missouri has a brown color and is sold as apple cider vinegar; however, figures obtained by this department upon examination of hundreds of samples taken from all parts of the state, show that more than one-half of the brown vinegars are grain vinegars colored with burnt sugar, (caromel). Grain or distilled vinegar, is pure, as pure as any food can be and as healthful as any vinegar, but the cost of producing it is so ridiculously small that when it is allowed to be colored artificially and sold as apple vinegar it is a fraud and forms very unfair competition; when sold it takes the place of an equal quantity of the true goods. As pure food commissioner, I have issued a ruling which will go into effect for the wholesaler Jan. 1, 1908, and for the retailer, April 1, 1908, to the effect that all vinegars containing an artificial color shall be deemed to be adulterated and shall be dealt with accordingly. This may increase the price of apple vinegar. I don't care if it does. Let each kind of vinegar be sold for what it is and let the law of supply and demand regulate the price. Last year there were 200,000 gallons of apple vinegar sold in this state. Many times that quantity could have been made from the apples that rotted on the ground in Missouri orchards. I am a farmer with all the sympathies and instincts of one and it truly made me sad as I rode through the south section of this state a year ago and saw hundreds of acres of orchards where apples were rotting by the car load. The farmer had paid his money for the land; he had paid money to get it cleared; he had paid money for the trees; he had paid money to care for them; he had paid taxes on the land for years, and now that the fruit had come, the presence of a fraud article on the market prevented these farmers from finding a market for the fruit which they had been to such expense in raising. I resolved then that if the pure food law passed and if I were honored with the position which I now hold, that one of my first official acts would be to clean the market of this substance, which, though in itself is pure, is sold with very impure motives.

This is not a one-sided law. It benefits the farmer in some respects, yet he being primarily the producer of food must expect to abide by the food law, the same law which governs others when selling to him. About one-half of the apple vinegar found on the market is below grade in acid strength. The law requires 4% of acid. Some of these vinegars are deficient because they have not been properly handled. They not infrequently increase in strength when exposed to the air in the analyzing room. Other samples, however, are weak simply because the farmer or someone else has added water to them. If the farmer wishes to sell vinegar he must learn to make a standard article.

It will be news to most of you to learn that there are a few counties in one section of this state which have a reputation in the cities of shipping rotten eggs. When the hen has done her duty for twenty-one days and no chicks appear, don't sell those eggs. It is a grave misdemeanor. Likewise it is a misdemeanor to sell rotten fruit, or cream which is so old as to be unfit for human food. Much country butter is short weight and some of it contains too much water. Apples are shipped under false names and in small bushels. Considerable tuberculosis (consumption) exists among the herds of the state. It is

against the law to sell milk or cream or butter from animals suffering from this dread disease.

The law will be administered with justice and reason, but it will be no respecter of persons.

THE FARMER IS LOSING HIS INDEPENDENCE.—The farmer of to-day is not the self-reliant independent man that he was fifty years ago. Spinning and weaving and making of men's clothing and shoes are no longer done in the farm home. Likewise knitting and cheese making and soap making are lost arts to the majority of our farmer housewives. In many sections, even the making of bread and butter is being forgotten; these things now being done in large factories by trained specialists. The American woman has been emancipated. It too is not uncommon to see a farmer draw a load of hogs to town and sell them from 4½ to 6 cents a pound and buy ham and bacon at 12 to 18 cents a pound, merely because he does not know how to cure his meat, though his father and grandfather knew these things well.

This change is not wholly to be regretted, but it does make it imperative that the farmer obtain more cash money during the year. Increased transportation and refrigeration facilities solve this in a measure, but now as never before the problem of how to grow bigger crops, how to increase the producing power of the soil, how to prevent the many little wastes which have been, is of vital importance.

It is up to you gentlemen to teach the fruit growing farmer how to produce better and more fruit and how to market it in better shape, and how to utilize the by-products and damaged fruits. It is up to the State Board of Agriculture and the State Agricultural College to teach the farmer how to manipulate the live stock and live crops to meet these new conditions with methods to fit.

R. M. WASHBURN.

THE IMPORTANCE OF THE PUBLICATION OF A GENERAL BULLETIN GIVING THE RESULTS OF FOOD AND DRUG WORK IN THE UNITED STATES.

BY E. H. S. BAILEY AND H. L. JACKSON.
Read at Chicago Meeting Am. Chem. Soc.

In carrying out the work of a food laboratory and in assisting in the enforcement of the food and drug law in the various states it would be a great advantage to the chemists and commissioners so employed if there were published monthly some bulletin giving the result of the analyses and opinions as to the legality of labels in the other states.

The reasons for this suggestion are apparent. If no attempt were made to go into detail in each report, but only to state the name of the substances found illegal, the publication would not necessarily be voluminous. The name of the state in which such food or drug product was found illegal might appear in brackets opposite the brand.

Since no legal food would be included in this list, all articles on the market would be still open to examination.

Since only "illegal" preparations would be listed, there would be no favorable advertising which could be utilized by the manufacturers.

If this list suggested was simply a compilation with no remarks upon the equality, the publishers of this would be in no way responsible for statements made.

The fact that articles might be passed in some states

and condemned in others might be rather an advantage than otherwise, for the following reasons:

Such difference can arise in several ways—

- (a) Difference in standards.
- (b) Absence of laws in one state that have been enacted in others.
- (c) Difference in methods of examination.
- (d) Different judgment regarding what might be injurious or not.

(a) A difference in standards is always objectionable, and throws a distinct and frequently heavy burden on the producer whose material enters interstate commerce. Such a publication, then, by constantly calling attention to the difference in standards, would render the food chemist familiar with these differences and constitute a growing influence for unification of standards: A condition of affairs greatly to be desired. In the same connection it is suggested that in some parts of the country too low standards have been set, and such a list, by calling attention to these matters, would familiarize the public with the best and fairest standards and be an influence toward the "survival of the fittest."

b. A list of the kind suggested would tend toward the enactment of good laws where none are at present on the statute books. Furthermore a manufacturer doing interstate business could not afford to be black listed in any state even though his product was up to the standard in other states. This would also tend to protect the people where there was no adequate enforcement of law as there would be a tendency of the survival of the better grade of food material. Those manufacturers who put upon the market the highest grade would ultimately be the ones whose product would be most salable. If a local manufacturer in a state sold a low grade of goods his materials would gradually be crowded out by food of a higher grade coming from outside. It is not for the advantage of a manufacturer to put up food of different grade for different states, so our experience has been that this is the strongest argument for uniform standards, and will even, sometimes induce a manufacturer to raise the grade of his goods so as to make use of a common label for any state.

c. By a publication of this kind attention might be drawn to differences in the method of examination, and where discrepancies existed there would be an opportunity to work out better methods.

d. As long as different states are ruling differently in regard to the same substance, if this is known and understood, it will lead to a discussion as to whether a given substance is injurious or not, and probably to investigations such as are now being carried out by the Department of Agriculture.

Those who defraud the public and thereby enrich themselves at the expense of honest competition will by this publicity be at a disadvantage, while the manufacturer of high grade goods will find his trade constantly increasing. We admit that the federal laboratories, under the present law, will not be able to assist actively in this compilation, but they could certainly help in various ways, and give their moral support to the undertaking.

Such a publication might contain:

First, an official list of the laboratories where food and drug analyses are made.

Second, a list compiled under various headings, such as flavoring extracts, beverages, canned meats, etc., of all food products reported by municipal and

other official laboratories as being illegal. This list should be very much abbreviated, and need only to contain the name of the preparation, the manufacturer, and place of manufacture, and the reason in a word, for the material being considered illegal, for instance, Lemon Extract, 2 per cent, Oil of Lemon, Vinegar, 2½ per cent, Acetic Acid, meat preserved with sulphites. Mustard colored with turmeric. If it were deemed advisable there might also be in connection with this a department of drugs where various preparations below standard and patent medicines sold under fraudulent misrepresentation would be listed. The general idea would be publicity, exposure of fraud and assistance and co-operation between various stations. The wider the circulation of such a publication in libraries, newspaper offices, schools and official laboratories, and among the people the greater would be the influence for good in a general way.

These are but suggestions made in a general way, without going so far as to outline a plan for a bulletin. They are presented because there seems to be a need for something of this kind.

Lawrence, Kans., Jan. 1, 1908.

FOOD MAGAZINE CRITICIZED at Meeting of AMERICAN CHEMICAL SOCIETY.

Mr. Bogert: Mr. Chairman, may I have the floor for a moment?

The Chairman: Mr. Bogert.

Mr. Bogert: There is a matter which I think should be brought to the attention of the members of the American Chemical Society right now, and that is: A publication known as *What to Eat* has printed an article in the January number, an article entitled "The Chemists' War," that is a total misrepresentation of affairs within the American Chemical Society. It is bringing up the question of a controversy between the Food Chemists of the Federal Service and the American Chemical Society, or certain members of the American Chemical Society. There is this particular statement at the close:

"The probable outburst of contention between the radicals and the conservatives is the only thing that threatens the absolute enjoyment and perfect success of the convention. Every effort is being made by the Chicago contingent to keep down the smoldering spark of opposition, but a big delegation are coming from New York with blood in their eyes, and if they and other representatives from the east have their way, there is liable to be a storm of dissention that will shake the organization from Maine to California, and intensify the hatred each of the opposing factions has for the other. Some predict a split in the body, resulting in two separate organizations, one composed entirely of radicals and one entirely of conservatives."

I ask could there be a more absolute misrepresentation of the condition of affairs within the American Chemical Society than that? if there is any blood in the eyes of the New York delegation, it is on account of being up until 2 o'clock at night of the last four or five nights (applause) and attending meetings of counsel and various contests that have kept us hard at work since we arrived here Monday morning.

That is as complete a misrepresentation of the condition of affairs as well could be. There is no split here, no contention within the American Chemical Society. Tell me as I stand here and gaze into the faces of this organization, as I have for this three

or four days, if there is any dissention or any hate or any opposition in this society. I say it is outrageous. It is not necessary for me to impress that upon you. You all know that. You know there is no more harmonious society within this country. We are working together as a unit. We are working together for the upbuilding of this American Chemical Society in this country, and we shall continue to work as a unit throughout next year and the years to follow.

If there are questions or differences of opinion as are properly raised in our discussions; or if there are differences between individuals, they do not concern the American Chemical Society. The American Chemical Society as such is a society for organization, and banded together for that purpose; not for the purposes of dissention or discussion of that question in any way. And we stand for the development of Chemistry, not for indulging in anything of that kind.

I think it is important that this matter should be brought to the attention of everybody here, and I trust there are press representatives here who will make that clear to the public of Chicago, that there is no more harmonious organization of scientists in this country than the American Chemical Society. There is no split, there is no dissention of any kind.

Mr. Parsons: In view of what has been said by President Bogert of the American Chemical Society, I would like to move that it is the opinion of every member of the American Chemical Society and of Section C present, that the statements as read by President Bogert are utterly false and that we heartily and thoroughly condemn their appearing in any publication in any such form.

Mr. ———: I second the motion.

The Chairman: The motion is made and seconded. As you say, is it the sense of this meeting to condemn the publication of those statements that have been read in your hearing?

Mr. Bogert: As utterly false and untrue.

The Chairman: I will be glad to put those words in, utterly false and untrue.

Mr. ———: Does that apply to all publications making such statements?

Mr. Bogert: This is the only one making the statements, I believe.

Mr. ———: There have been notices in the daily papers here in Chicago all week to that effect.

Mr. Bogert: To that effect?

Mr. ———: To that effect.

Mr. Bogert: I move that they be included, then, in this motion.

The Chairman: Is it intended that this paper should be named specifically in this motion?

Mr. Bogert: I think not.

The Chairman: Then, to condemn all public notices of this sort. Is there any further discussion? If not, all those in favor of this motion will please indicate it by saying Aye. Those opposed, No. It is a unanimous vote.

WILL FIGHT WISCONSIN FOOD LAW.

The Wisconsin Millers' Association will fight the state pure food law which requires all millers to pay a license of \$25. The law went into effect January 1. They claim that they see no reason why they should pay a license no more than the paper manufacturer who makes paper and the law will be fought on the ground that it is unconstitutional.

EXTRACT MANUFACTURERS NOT AVERSE TO SCRUTINY.

Editor, New York Commercial:

Sir—There appears to be a misapprehension in some quarters as to the attitude of the American Extract Manufacturers' Association and other food purveyors and manufacturers with reference to Dr. Wiley and the pure food law. The protest of these reputable business men is primarily against the assumption by Dr. Wiley of legislative prerogatives in establishing himself as a maker of standards of food composition, a thing which Congress itself not only disavowed, but expressly repudiated, as will be shown further on.

From necessity and self-interest, even if there were no higher or better motives, no persons are actually more anxious to see impure and harmful foods detected and prohibited, and the purveyors thereof in an orderly way punished, than these merchants. In all my observations of, or connection with, as counsel, the committee at Washington last winter, I heard no merchant associated with the then and present protesting and protective movement object to the general terms and original purpose of the "pure food" law, though some of the provisions of that law are probably unconstitutional. It is the crimes committed in the name of this law and reform only that are objected to.

If food purveyors, extract manufacturers, and others affected by these conditions were all lawyers, they might not be demoralized as they are at present, for they might understand how absurd and preposterous these legislative pretensions of Dr. Wiley and his subordinates are. They might reason out wherein Dr. Wiley is not higher or more powerful than Congress in the matter of such legislation; or higher than the constitution of the United States which lays down certain limitations as to restraint of trade, and as to the taking in any way of property of any kind, without the due and orderly process of law as administered by the courts. But full knowledge of the constitution and the law and the fallacy of these legislative pretensions could not bring back to a merchant or manufacturers those values and that property and good will which suspicion may have destroyed. If the product were like lumber, steel rails or other goods of that character, the situation would, of course, be different. The produce would still be on hand, and of full value after the fight was over.

DR. WILEY'S STATEMENT.

Dr. Wiley is paid by the government not to act as a hurrah reform campaigner; as authority on what we should eat and what we should drink, as a substitute for Congress, but to aid in an administrative way the carrying into effect of the law, as enacted by Congress. If I am not mistaken as to the exact amount, \$500,000 was placed at the disposal of the bureau of chemistry of the Department of Agriculture by the last Congress, with which to ferret out and prosecute the purveyors of impure and misbranded foods, as carried on through interstate commerce. Many months have passed since this appropriation went into effect, but all has resulted, as far as we can see, merely in a continuance of the advertisement and exploitation of the peculiar views of Dr. Wiley, such as those in favor of our not masticating our food and the like, and the advertisement of the great book of Dr. Wiley, which book appears now as a grand climax.

Many of the difficulties to be surmounted in secur-

ing a just application of the federal law, in accordance with its letter and its spirit, are manifest when we are confronted with a voluminous code of rules for the administration of the law. Some four times the bulk of the act itself are these rules formulated (as we believe they were), practically by one man, without legal training, and consequently not a few of them are unwarranted by, and substituted for, the law. The evident task imposed upon the legal profession, in the struggle of securing to all their equal legal rights, as written in the act of Congress, is to so present the provisions therein actually made to those who may give them judicial construction, that the law shall be held supreme, and the numerous rules for its execution subordinated to, and made conformable with, the authority of the national legislature.

STANDARD FOR FOOD PRODUCTS.

There existed in the Department of Agriculture apparently an idea, but from a legal standpoint an entirely erroneous idea, that a provision in the appropriation bills of 1903, 1904, 1905 and 1906 gave authority to establish standards of relative proportions of normal ingredients in the manufacture of food products.

It is a well known fact, especially to the legal profession, that appropriation bills, like the fabled Phenix, live but one year, and it was therefore necessary to renew this provision every year. I repeat that this provision conferred no authority, such as the Agriculture Department claimed under it, empowering any person or any combination of persons, to fix standards of relative proportions of normal ingredients, in the composition and manufacture of food products or any other products. But as a departmental club, it was just as useful and destructive as if it had been general legislation. In 1906 the pure food and drug act came before Congress as a matter of general legislation and was debated in all its various phases. Indeed, Congress has many times discussed such a bill, the first having been introduced by Senator Paddock of Nebraska, in 1889, and a similar bill has been presented nearly every year since. No authority to establish standards was incorporated in the bill which became a law June 30, 1906.

This matter of standards was fully thrashed out of Congress when the pure food law was passed. The pure food law properly came up as general legislation, was fully considered, and Congress refused to give Dr. Wiley any such power. The effect of such an amendment to the present food law would have been in effect to place not only penal power, but power to destroy tremendous business interests and values, in one man. Failure on the part of a manufacturer or other food purveyor to comply with this drastic and far-reaching amendment to the present food law might have resulted in a criminal indictment, after which such merchant would have the great pleasure and privilege of meeting the rules and decisions of Dr. Wiley on the important question of how much or how little ingredients should be contained in any given food product used in interstate commerce, in a criminal court. It is equivalent, in effect, to allowing the attorney general of the United States, collaborating with such other prosecuting officers of the country as he might deem necessary, to make and construe the penal laws under which they are to prosecute, leaving no appeal from that decision, except in a criminal case, after indictment.

STANDARDS WOULD BE RIDICULOUS.

On the very face of the proposition the making of food standards in such a way would not only be exercising great power in a loose and irresponsible way to the point of ridiculous absurdity, but it can be readily seen that establishing such standards in such a way would be entirely ex parte and altogether one-sided. Such an attack in the criminal courts upon a perfectly healthful and necessary food product, afterward fully established and maintained before a jury in such criminal trial, would certainly destroy the business of the defendant. Even Dr. Wiley could be mistaken in determining whether food manufactured by a given formula would be injurious to health. We may assume that the intentions of Dr. Wiley throughout his whole zealous and energetic campaign on the subject of foods have been, and still are, entirely pure and patriotic, uninfluenced by price of office, thirst for patronage and power or any other consideration in any way to conflict with the food interests of the country. But some less pure and less patriotic successor of the worthy doctor might become a crank, or even (if possible) worse than a crank, and carry this great reform to the full limit of the power and authority vested in him by such a law.

That these zealous and sweeping movements under the name of reform often overstep the bounds of legal authority is illustrated, in a measure, by the action of a commission (of very limited and expressly defined powers) created under the pure food law of the subcommittee of which Dr. Wiley is acting chairman. This commission was merely authorized to formulate rules and regulations to carry the law into effect, but is assuming to promulgate and determine, and in an official communication of the Department of Agriculture publish, standards for food products, claiming authority under the appropriation act of 1903, which act, like all appropriation laws, of course, as already indicated, died with the fiscal year for which it was passed.

Perhaps the worst result of this assumed legislative action on the part of Dr. Wiley and his associates of this subcommittee, is the fact that some of the state legislatures (notably in New Jersey) assuming the proclamations of said commission (which had no power to make standards) to be the national law, are actually enacting these arbitrary and unlawful standards into state statute law.

The agents of the Department of Agriculture go before the legislative committees and represent these Wiley standards as national law and secure their adoption by the states through artful misrepresentation as to the lawful power of said commission. If the reader will examine the congressional record of January 26, 1907, he will find not only the interesting discussion in the house on this question, quite as interesting a discussion of the same question in the United States senate.

POISON SQUAD TO TEST SODA FOUNTAINS.

The latest announcement of these professional food sensationalists is to the effect that a "poison squad" of young, embryo sensationalists (and they are to be found everywhere where such able leaders abound) is, under the direction of "Chief" Wiley, very shortly now to begin a so-called "test" campaign against the soda fountains of the country. Why not make the "tests," by whatever reasonable, sensible and legitimate means the Department of Agriculture determines upon, discover some actual culprits and prose-

cute them regularly and in an orderly way? The law is ample and the courts and the officers of the Department of Justice stand ready to put in motion the orderly machinery of the law. Why make these sensational announcements, which throw suspicion upon and hurt a great and legitimate general business, before discovering and accomplishing (with the large appropriation and great chemical staff at their disposal) anything in particular? Apparently, the reason is the usual reason, and the only reason we can find, and that is that the latter program necessitates work and results before glory. The former program (and the one always apparently adopted) means fine advertisement and glory in the eyes of that portion of the public who have nothing at stake and are carried away by the magic name of "pure food reform" without work, except on the part of the "press agent."

In conclusion, the food and drug and extract manufacturers and purveyors are entitled to just as much consideration as the railroads. They represent, in fact, a great deal more invested capital than the railroads, as enormous as that may seem. The problem of their proper regulation on the one hand, and protection from fake or fanatical, sensational or overzealous grandstand hurrah reformers on the other, affect millions of people, where the railroads, that are occupying the center of the legislative and executive stages to-day, comparatively speaking, affect only thousands.

Attacks by the government, or by individuals, upon railroad interests could not effectually destroy any actual railroad property. Such attacks only affect stocks, and are usually damaging only to stock gamblers and stock manipulators and speculators. On the other hand, the rights of the general traveling public as to these common carriers have been fairly well and equitably protected since the English-speaking people have lived under what is known as the common law and its immutable principles. Railroad corporations are sufficiently powerful and sufficiently organized and intrenched to appeal without much trouble, and successfully, to the courts, to protect their rights and their actual property.

Yet these railroad interests (which I here refer to merely for the purpose of illustration) that are said to be so oppressive and to have so little regard generally for law and order and the welfare and rights of the public, have a real commission constituted after great legislative consideration, the members of which are appointed by the President and confirmed by the senate, known as the "Interstate Commerce Commission," to pass upon questions affecting railroad interests; and they are not left (as to these interstate commerce questions) to the mercy of ambition and to sensational reformers; in addition to their better ability to successfully apply to the federal courts for relief.

If the federal government is to continue its present regulating and inquisitorial program (which primarily is not here objected to, if aimed lawfully and constitutionally at impurities and misbranding), the food, drug and extract interests in their various and far-reaching ramifications are as important, we maintain, and entitled to as much consideration we insist, as the railroads, to say the least.

The present ex-parte prosecuting commission assuming authority over these tremendous and far-reaching questions, claim also the right to publish in

pamphlet form in the shape of so-called "opinions" its "decision" on a merchant or manufacturer, even before his trial and conviction in the courts. If this is not an invasion of personal rights, if it is not destroying and indirectly taking valuable property without due process of law, I would like to see such a case. Business "good will" is in itself valuable property recognized by law.

Of course, the privilege of defending these "decisions" and such standards as we have discussed, after indictment, is a very condescending favor on the part of the Department of Agriculture, and a favor for which I am sure all are deeply grateful, but it is a favor, permit me to remark, which would hardly have been denied to the worst of felons in the dark ages.

But what is to become of the business and "good will" of the defendant after Dr. Wiley and his associates promulgate their "decisions" and blow their official blast of denunciation? The answer is, that the subject-matter (of this usually highly technical controversy) will have been blown into atoms under the first ex-parte "decision" of the government's food "oracle."

Legislation as to this subject should not be slapped together hurriedly or guided by professional sensationalists who have no actual business experience, or knowledge of, or regard for fundamental legal principles. Such legislation should (as that able and distinguished statesman, Senator Henry Cabot Lodge, intimated on the floor of the United States senate last winter when he so effectively assisted us in defeating the standard power clause surreptitiously, as we have shown, inserted in the agricultural appropriation bill), be very carefully considered.

We would earnestly recommend, therefore, to the actual lawmakers of the country, a study of food and extract laws in other countries, especially in the great country of Germany, and in England, in which great countries (though kings and emperors instead of a republic obtain), the people are just as discriminating, and just as expert and intelligent, as they are in this country; and where property rights are protected from such overzealous attacks as to such matters as we have of late seen in this country. A study, for instance, of the English pure food law, which law has been in effect for 40 years (and which law does not discriminate), should be read at Washington generally and considered by the present congress especially. Meanwhile, the power and authority of enforcing the pure food law should ultimately rest in the courts, where it properly belongs, and where all laws are properly construed and must be eventually decided.

The ex-parte "opinions" and one-sided "decisions" promulgated by administrative officers as to this matter are void, and when the same are injurious to general, or particular, legitimate business, should be vigorously protested against. This duty cannot ultimately be left to theorists on chemistry, nor to men who do not understand the simple rules of applying the constitution, or of the construction of new statutes. We are proud and thankful also in this connection to realize that the federal courts of this country, from the lowest to the highest, have not yet wavered in their high regard and respect for the constitution of the United States, or been influenced in any way in construing or applying new statutes, by sensational clamor.

HUGH GORDON MILLER.

New York, January 1, 1908.

BENZOATE OF SODA IN FOOD PRODUCTS

Address delivered by E. C. Johnson, secretary Food Manufacturers' Association, before the American Extract Manufacturers' Association, New York, Nov. 15, 1907:

That everything should decay is a law of nature. Fruits decay, plants decay, animals decay, man decays. This world of ours would clog up if there were no decay. We would not have coal today if plants and trees had not decayed. The farmer puts manure on his land so that it will decay and enrich the earth.

The cause of decay is fermentation. Decay must be arrested and fermentation stopped to supply the demand of mankind for fruits in various forms out of season. Three ways of doing this are known to science—evaporation, sterilization and by preserving mediums. Evaporation is obviously limited and inadequate. Sterilization, though available for certain lines of business, is extremely expensive. It is impracticable for large packages, and the greater part of the business in preserved fruits is done in bulk. Again, certain goods are decidedly inferior when preserved by this process, as for example, crushed fruits for soda fountain use. Furthermore, although small packages may be sterilized and thus kept successfully unopened, when they are opened they spoil very quickly.

By preserving mediums, I mean salt, sugar, spices, wood smoke and such chemical preservatives as benzoate of soda. The first four are impracticable in certain lines and we find the food manufacturers uniformly using benzoate of soda. A very small amount of it prevents the growth of moulds, yeasts and nearly all bacteria in various fruit products, such as preserves, catsup, pickles, cider, jams, mince meat, salt fish, table condiments, crushed fruits and syrup for soda fountains, etc. Goods of this kind if put up in bulk without a preservative will at once start to ferment and in a short time will become spoiled. To prevent this the manufacturers use a very small amount of benzoate of soda. The average amount used is one-tenth of one per cent (.001); that is to say, about one-half ounce to a thirty-pound pail of preserves. This checks the fermentation for a while and allows the goods to reach the consumer in a sweet, wholesome state. Benzoate is especially necessary where bulk goods (goods in pails, kegs, barrels and all large packages) have to be shipped across the country, being continually shaken up and exposed to different temperatures on land and water. Without preservative they would ferment, spoil, toxins would develop, and ultimately ptomaine poisoning would result.

Another reason for using benzoate is that it allows the manufacturers to get the full advantage of the fruit crops in their season, and store them in their natural condition, to be packed in their finished condition later on when the rush is over. There are not enough factories nor enough help in this country to put up in their season all the fruits—tomatoes, strawberries, peaches, etc.—that are now packed and offered at low prices. Benzoate of soda makes this possible and thus enables the manufacturers to give the public more fruit and at lower prices than would be possible without it.

Benzoate of soda is a sweetish, white powder. It is used as a medicine for rheumatism, gout, tuberculosis and kidney diseases. It is derived from benzoic acid, which exists naturally in some fruits, as cranberries, in the seeds of cherries, peaches, apricots, in

vanilla beans, essential oils, cinnamon, cloves, etc., and in gum benzoin.

What are the objections to the use of this substance which the manufacturers believe so necessary and beneficial? We do not know definitely. We understand that the unfavorable evidence is based on results from Dr. Wiley's "poison squad" and the testimony of certain eminent experts, "who, however, are not engaged in the manufacture and sale of foods." The very fact that these "experts" are not acquainted with the manufacture of food products weakens their testimony. Food manufacturers feel that in so important a situation as this the men who are consulted should be specialists, men who know something of the manufacture of foods and not mere theorists.

The manufacturers also feel that any evidence based on the results obtained from Dr. Wiley's "poison squad" is decidedly inconclusive. This squad was fed on benzoate of soda for a few weeks and we are told that the results were not favorable to benzoate, but no official report of these experiments has been published. Many eminent scientists ridicule these tests because the benzoate was given in capsules instead of being spread through the food, and because the adverse mental effect caused by thorough publicity was not taken into consideration. A leading physiological chemist, probably the leading one of the country, told me that scientists do not consider Dr. Wiley's experiments seriously. An able member of another bureau of the Department of Agriculture confidentially told me that the same opinion was held throughout the department.

A number of Dr. Wiley's "poison squad" on borax related to me why he considered any results based on experiments with him inconclusive. He entered on the work of the squad in the pink of condition, after a fall of vigorous athletic exercise. His appetite was unusually good at first, but not being allowed to take any unusual exercise it naturally fell off. Notwithstanding this he was compelled to eat as much food during the second period as he was at first, with the result that food almost nauseated him. He said that the doses of borax were increased until the men were either made sick or rebelled, simply to see how much they could stand.

Again, scientists have told me that in carrying on such experiments the members of the squad and the public should not generally know what was going on. The mental prejudice that was created in this instance was insurmountable. The members of the squad were required first of all to sign a bond releasing the Government from damage in case any harm befell them. This alone would be enough to scare almost any one, but in addition these men were advertised all over the country as the "poison squad" and were commonly called "dope eaters" by their friends.

I firmly believe that if Dr. Wiley should to-day feed another poison squad on articles preserved with sugar, spices, salt or wood smoke, under exactly the same conditions, with the same adverse mental effect, with the understanding that they were eating something deleterious, he would get exactly the same unfavorable results. I will go still further—I believe he would get the same results under the same conditions with any admittedly harmless food substance, even water.

Other objections to the use of benzoate of soda come from two manufacturers who claim that they are able to put up their goods without it—the Heinz Company and the Columbia Conserve Company. The

Heinz Company have maintained for the last year orally and in their advertisements that their goods did not contain benzoate, and have claimed that it was harmful. When confronted with evidence before Secretary Wilson this month that they are to-day putting out goods containing benzoate they had to admit it, and when asked why they used a product which they claimed to be poisonous, they replied that they were simply working off some old stock that they had on hand. Both the Heinz Company and the Columbia Conserve Company recently argued before Secretary Wilson that the Department of Agriculture should insist on benzoate of soda being prohibited, and should extend no assistance to those manufacturers who are unable to put up their products without it. This pitiable exhibition of narrow-mindedness and bigotry, this hypocritical desire to forward their own selfish interests, regardless of those of other manufacturers, was promptly rebuked by Secretary Wilson, who said that the department would do all it could to help the trade.

Now for the manufacturers' side. As secretary of the Food Manufacturers' Association, I have collected about two hundred letters from the leading food manufacturers all over the country. These declare that they have never heard of any injury being done to man, woman or child by the use of benzoate of soda. Many have large numbers of employes who have for many years eaten their products preserved with it without any ill effect. One of our members, Mr. Edward Brick, a well known New Jersey mince meat manufacturer, has taken a fancy to benzoate and for the past ten years has eaten a pinch of it a dozen or fifteen times a day whenever he goes by the benzoate barrel. He had the doctor examine him recently to see if it had done him any harm and the doctor pronounced him in perfect health. Other members of our association, who are expert chemists and pharmacists, believe in its harmlessness so thoroughly that they eat food containing it right along and advise their families to buy goods that are preserved with it. For example, Mr. Chas. E. Miller, superintendent of the manufacturing department of F. L. Miller Co., Boston, writes: "We regard benzoate of soda as absolutely harmless, and have never heard of any one being injured by its use. I have used it in the preparation of food for my own home use. If it were harmful it would certainly have affected us, for we are constantly tasting and eating products containing benzoate; that is, we are taking doses of benzoate in food for much longer periods than the so-called "poison squad" with absolutely no harmful effect so far as we can see. In buying ketchup or like products for home use, I ask for goods preserved with benzoate, as the unpreserved goods spoil before I can use them up, and I regard them as absolutely harmless." We have many letters like this. The Massachusetts food law allows benzoate. Dr. Harrington, author of this law, secretary of the Massachusetts Board of Health and head of the state pure food work, said "that he would just as leave eat articles prepared with benzoate as cranberry sauce."

It seems very peculiar to us manufacturers that one department of the Government should claim that one-tenth of one per cent of benzoate of soda is harmful, and that another department should insist upon having nearly double that amount put in goods that are supplied to it; yet such is the fact, for the requisitions for ketchup for the fleet that is to sail to the Pacific

specifically state that it must contain from three-twentieths to two-tenths of one per cent benzoate of soda.

Not only do the manufacturers believe that benzoate of soda is harmless, but many of them state they think considerable harm would be done if their products were put upon the market without benzoate; either because the consumer would not know that fermentation had started and would use up the goods, or knowing it would use them rather than lose money by throwing them away. They believe it a great deal better for people to use benzoate of soda and be on the safe side than not use it and run the risk of that greater evil, ptomaine poisoning. Dr. R. G. Eccles in his work, "Food Preservatives," takes this stand and maintains that in those countries and states where preservatives have been forbidden, the number of cases of ptomaine poisoning has increased greatly.

One would naturally suppose that if a substance was injurious to health, some instances would be found where injury could be directly traced to that substance, but this is not so with benzoate of soda, for there has never been a single case found where injury has resulted from it.

Dr. Wiley claims that it should be prohibited if it can be shown to injure any one, not in one year or two years, but in thirty, forty or fifty years. This argument seems nonsensical to us, for what is there under God's heavens that Dr. Wiley could not prove to be injurious in that length of time. The telephone has doubtless injured many people. Why not forbid its use? Many persons are made sick by riding on railroad trains and electric cars. Why not prohibit railroads and electrics from running? A great many doctors consider nicotine a poison. Why not prohibit people from smoking? There would be just as much reason and just as much justice in doing these things as there would be in prohibiting the use of benzoate of soda because some one may at some indefinite time be injured by it.

As to the amount of the financial interests that are involved, the food officials appear to care little. At the hearing given our association, in June, we dwelt on the number of establishments, the capital, the employes, etc., engaged in this line of business and the effect on these of the inhibition of benzoate.

According to Dr. Wiley's book, "Foods and Their Adulterations," there were in 1904, 2,687 establishments engaged in canning and preserving fruit and vegetables, fish and oysters. Their capital was \$69,589,316, and the aggregate yearly value of their products \$107,534,464. We read letters showing that nearly half of the manufacturers in our lines would be ruined or driven out of business if benzoate of soda were forbidden and that all would cut down their help greatly. We showed how the farmers and fruit raisers would suffer by not having a market for their products. The largest cider concern in the country told of the thousands of dollars that they annually give the farmers for apples that would bring nothing if benzoate were prohibited. But in spite of all this the business end of the argument did not and does not appeal to the food officials. For instance, at one time the manufacturers were explaining to Dr. Wiley how they had to put up enough fruit while it was in season to last them for the whole year and had to use benzoate to do it. He said, "Can it; start a canning factory where you get your fruit." He does not seem to realize that all of these things cost money. He does not realize that every increase in manufacturing

cost, such as new plants, new machinery, cans, smaller packages, extra labels, and so on, means an increased cost in the selling price, and that every marked increase in the selling price means a diminution in sales. When the great medium class of people buy their food products—and they are the class who buy the most of them—they cannot afford to pay fancy prices for expensive, small individual packages.

This total lack of consideration for the financial interests involved has led the food manufacturers to believe that the gravest injustice has been done them. They feel that instead of the policy of the Government being a constructive one, one that should help them, it has been a destructive one. For years the public has been educated to believe that the manufacturers are a set of adulterators, whose only aim is to make the most money possible without regard to the health of the people. The manufacturers feel that they have done everything in their power to co-operate with the Government in working out this problem, but without any assistance.

Four or five years ago, Dr. Wiley was seeking an appropriation for his poison squad. The officers of our association helped him get this appropriation, and in return he promised us that if he should find from his experiments that benzoate of soda was harmful, that he would continue his investigations, until he found a satisfactory substitute. This promise he has never fulfilled, and the food manufacturers have been most patiently waiting during this time amid the most nerveing, rasping and chafing business conditions for him to fulfil that promise.

In September, 1906, after the food law was passed giving power to the three departments of Agriculture, Commerce and Labor and the Treasury to draw up certain regulations, a hearing was held in New York, at which Messrs. Gerry, North and Wiley represented the three departments. The first two assured us that they were there to see that the manufacturers got a square deal and that our interests were looked after. What happened? Shortly after the hearing Mr. Gerry and Mr. North were sent abroad to look after the German treaty; new Secretaries were appointed for the Department of Commerce and Labor and the Treasury, and everything relating to the food question was left to the Department of Agriculture, and through it to Dr. Wiley. As a result every question that we have asked, every letter that we have sent in connection with pure food work has been turned over to Dr. Wiley. Whether you wrote to your senator, your congressman, the Secretary of any of the three departments, no matter whom, the answer came from Dr. Wiley.

For example, the Secretary of Agriculture appointed a board to settle the question of benzoate of soda. Dr. Wiley, in his book published in May, 1907, openly states that he considers benzoate deleterious and an adulterant. He was, however, made chairman of this board to decide whether or not it was harmful. Quite naturally the board decided against it and F. I. D. was issued. Learning that Secretary Wilson had signed and fearing that it definitely forbade the use of benzoate of soda, on June 28 I wrote a strong letter to Secretary Straus of the Department of Commerce and Labor, which department we had been told would see that our interests were properly conserved. I told him frankly that the food manufacturers did not

think that they had been given a square deal by having the matter turned over to a man who had already prejudged the case. This letter was strictly private, but to my surprise, I received an answer from Mr. Straus's private secretary, saying that in the absence of Mr. Straus he had referred the matter to the Secretary of Agriculture, which meant that Dr. Wiley would get it.

So long as Dr. Wiley has the final say as to whether or not benzoate of soda is harmful, just so long will the manufacturers believe that an injustice is being done them, because they consider Dr. Wiley absolutely prejudiced in his views on this subject.

Please do not misunderstand me. I do not mean to belittle the good that Dr. Wiley has done. Personally, I believe him to be a very able man, a hard worker, and a sincere believer in his work. I can see where he has made this his life study. I also believe, however, that he feels that preservative must be prohibited if the child of his own fancy, the food law, is to stand. April 2 he wrote me: "We forget the fact that if the justification of the use of the preservative is sustained, our food law is not worth the paper that it is published on." His motive, then, in seeking to down preservatives is clear; namely, because he feels that in order to back up the food law, preservatives must be prohibited at all costs.

A final word about the position of the food manufacturers. We thoroughly believe that benzoate of soda is entirely harmless and absolutely necessary and many years of practical business experience substantiate this belief. We have never heard of a single case of injury through its use. We believe indeed that it is a strong factor for good, in that it keeps products that otherwise would spoil and be eaten. On the other hand, there is not a single manufacturer in our association who would wish to use benzoate of soda if it were clearly proved to be harmful. We do feel, though, that we have been most unjustly treated, that our interests have not been deservedly considered, that the officials have been prejudiced against us and have sought to prejudice the people against us, and that before benzoate of soda is definitely prohibited and a blow struck to such great business interests, that the Government should appoint a board of able, impartial, unprejudiced, practical men to investigate the entire subject thoroughly.

WANT BENZOATE OF SODA.

A conference was held at the White House on January 9 between Secretary of Agriculture James Wilson, Dr. Harvey W. Wiley, chief chemist of the department, and Representative James S. Sherman of New York, in regard to the use of benzoate of soda as a preservative.

The pure food law, as administered by Secretary Wilson's department, makes it illegal for manufacturers of condiments and sauces to use benzoate of soda as a preservative, Dr. Wiley holding that the substance is deleterious to health. Other chemists have declared that benzoate of soda as used by the canners is not injurious.

The canners say that they have invested millions of dollars in an industry which depends on the use of this substance, and they ask that the enforcement of the regulation be suspended until something can be found to take its place. The matter is under advisement.

AMENDMENT OFFERED TO THE NATIONAL FOOD LAW.

H. R. 6089.

In the House of Representatives, December 9, 1907. Mr. Dalzell introduced the following bill, which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed:

A BILL

To amend sections six and seven of the pure food act of June thirtieth, nineteen hundred and six, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the food and drugs act (June thirtieth nineteen hundred and six) be amended as follows:

Amend section six by inserting after the words "or National Formulary" the words "or in the Homeopathic Pharmacopœia of the United States," so that the section as amended shall read:

"Sec. 6. That the term 'drug' as used in this act shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary in the Homeopathic Pharmacopœia of the United States for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease of either man or other animals.

"The term 'food' as used herein shall include all articles used for food, drink, confectionery, or condiment by man or other animals, whether simple, mixed, or compound."

Amend section seven, first part, by inserting after the words "or National Formulary" wherever they occur the words "or in the Homeopathic Pharmacopœia of the United States," so that the section as amended shall read:

"Sec. 7. That for the purposes of this act an article shall be deemed to be adulterated:

"First. If when a drug is sold by a name recognized in the United States Pharmacopœia or National Formulary or in the Homeopathic Pharmacopœia of the United States, it differs from the standard of strength, quality, or purity as determined by the test laid down in the United States Pharmacopœia or National Formulary or in the Homeopathic Pharmacopœia of the United States official at the time of investigation: Provided, that no drug defined in the United States Pharmacopœia or National Formulary or in the Homeopathic Pharmacopœia of the United States shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary or in the Homeopathic Pharmacopœia of the United States."

The Review Star says: The rabbit crop this year is great. Sometimes "Bunny" is attacked by a wasting disease that depletes his numbers. This year he is very much in evidence and the fall of snow has not been so great as to deprive him of food so that he is in good condition and when properly cooked with plenty of pork and duly served as a stew he is a toothsome delicacy. Roast rabbit, however, is an abomination unto the Lord.

BULLETIN NO. 8 ILLINOIS FOOD COMMISSION. VINEGAR.

It has come to the attention of this department that a vinegar made from dextrose is on sale in this state, and on the label it is designated as "Grape Sugar Vinegar."

We call attention to the fact that under Section 9 of our state law "dextrose" is "corn sugar," and as the term "grape sugar" conveys no intelligent idea to the average purchaser as to the nature of the product, but is clearly misleading as applied to vinegar made from a product of corn, since it suggests the product of grapes, this department will require that in future all vinegar made from corn dextrose shall be labeled "Corn Sugar Vinegar."

We call attention also to Section 11 of the law which is as follows:

Sec. 11. (Vinegar to be Branded.) All vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded with the name of the fruit or substance from which the same is made. All vinegar made wholly or in part from distilled liquor shall be branded "distilled vinegar," and shall not be colored in imitation of cider vinegar. All vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, shall contain no foreign substance, and shall contain not less than four per cent, by weight, of absolute acetic acid.

Manufacturers, jobbers and dealers in vinegar will please take notice and govern themselves accordingly.

Issued at the office of the Illinois State Food Commission this 2d day of January, 1908.

A. H. JONES,
State Food Commissioner.

INVESTIGATIONS OF BREAKFAST FOODS. Special.

Harrisburg, Pa., Jan. 2d, 1908.

Various complaints concerning the quality of many of the breakfast foods sold in this commonwealth having reached Dairy and Food Commissioner Foust, agents of the dairy and food division were directed to collect samples of said products. As a result samples of eighty-two different brands of breakfast foods were gathered up. These were forwarded for examination and analysis to Dr. William Frear, of State College. Dr. Frear is president of the Foods Standard Commission, acting under the immediate authority of the national government and is one of the country's most eminent chemists. He has completed the work assigned him and submits to Dairy and Food Commissioner Foust an elaborate report, covering fifty-two type written pages.

The investigation made by Dr. Frear was purely chemical and microscopical. He says that the determination of nutritive values was confined to ascertaining what the ingredients of the foods are and whether or not they are normal in composition." No attempt was made "to compare their digestibilities and nutritive values by direct physiological experiment." The examinations were conducted in such a manner as to ascertain as far as possible the truth or falsity of the high claims made by the manufacturers of these preparations or the charges made by others that "certain of these foods are highly medicated and that many of them are extensively adulterated with worthless materials, such as corn cobs, corn stalks,

wheat bran, etc." The result of the examination tends to show that the claims of many manufacturers are highly colored and sometimes absolutely false, while the charge that drugs or foreign substances have been used is not sustained.

The following paragraphs from Dr. Frear's report indicate one weak point in many of the breakfast foods. The cleanly housewife, the consumer who does not wish to mix bugs and worms with his food, will certainly be interested. "Freedom from insect invasion and destruction is an important condition for merchantable breakfast food. Many of the samples when opened for examination, were found to be infested and many of the exhibited evidences of very extensive destruction. This was true, however, not only of packages that were manifestly shelf-worn, but of many that were fresh in external appearance. In view of the fact that these samples had been shipped in the same case with many other samples and had necessarily been stored for a time in the same lock-closets prior to examination, and also to the well known fact that the insects causing such destruction are able to pass rapidly from package to package and equally well work their destructive effects, it has seemed fairest not to make a specific report with respect to the particular samples found infested, lest injustice be done to dealers and manufacturers whose goods were sound when sold to the agent." Nothing could be fairer than the caution of Dr. Frear. But a product so peculiarly susceptible to infection should be used by no householder until after it has been given a careful microscopical investigation.

Seven samples of rolled and crushed oats were examined. These were found to be practically all they were represented to be. There was no evidence that sulphurous acid had been employed as a bleaching agent and no instance of false labeling as to package weight. Except as barley is represented, in whole or in part, in some of the so-called malted breakfast foods, only one barley product appeared among the samples. The statement on the label that this food "contains more brain producing elements than any other breakfast food," is declared by Dr. Frear to be "not true, since there are other breakfast foods richer in cereal germs that contain more phosphorous." The samples of corn products examined consisted of corn meal, hominy or gritz, and cooked products. No harmful foreign products were discovered, although some of the labelling is not justified by the actual facts. Many samples of wheat products were examined. No foreign tissues were found in the samples, but the claims of many of the labels are false. Several cases of flagrant misbranding are noted. In the examination of the so-called malted or predigested breakfast foods Dr. Frear found that in almost every instance the claims of the label are not borne out by the actual facts. Many of these foods claim great medicinal virtue and are presented to the consumer as restorers of brain power or nerve force builders up of the human system. Claims of this sort are undoubtedly meant to deceive the public and attract buyers; there is absolutely no basis for many of the assertions found on the labels of some of these products. They constitute misbranding of the most flagrant sort and are violations of the pure food law.

In reference to self-raising flours, Dr. Frear says that the samples examined, "showed the presence of no sulphurous acid." There was no evidence of misbranding except in two samples which have on the

principal face of the package in large type the name "Buckwheat," though it is explained elsewhere in small type that the articles are mixtures of buckwheat with other flour. These are distinctly in violation of the United States regulation. Several of the samples revealed considerable amounts of nitrous acid used for bleaching purposes. Dr. Frear says: "The sale of flours that have been bleached should not be permitted without a proper declaration of this treatment, for, while it may be said that the effect of the treatment is an improvement in the appearance of the flour, the real object is to make possible the sale as a high grade article of flour known by its color to be an inferior product. It is thus in violation of the spirit of the fourth article of Section 5 of the Act of June 1, 1907, which defines a food as 'adulterated' 'if it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.' It is not only in violation of the spirit of the act, but also contrary to its letter, if the definition of the verb *stain* is held to be 'to discolor'; that is, 'to alter the natural tint or hue.' United States regulation 12 embodies this view. It says: 'The term "stain" includes any change produced by the addition of any substance to the exterior portion of the food which in any way alters the natural tint.'"

The report of Dr. Frear will appear in full in a special bulletin of the dairy and food division, to be issued within the next thirty days for the information of the trade and the consuming public. In that report the various breakfast foods examined are distinctly named, with the results of the chemical analyses and the comments of the chemist upon the quality of the products and the character of the claims made by the manufacturers. While it has not been shown that the various foods contain anything injurious to health, it has been demonstrated that many of them are peculiarly susceptible to infection by insects and worms and that every household using them should own a microscope, and it has also been shown that they possess no superiority over other foods and that the extravagant claims put forth by their manufacturers are without foundation. That is the most serious charge that can be brought against them. They are sold in many instances because of the claim for the medicinal properties which they lack.

The demonstration that bugs and worms exhibit a marked partiality for breakfast foods suggests that some regulation should be adopted to bring the product directly from the manufacturer to the consumer. If the newly manufactured samples sent the chemist by the agents of the dairy and food division were contaminated by associating for a few days with some samples that were more ancient, it is a fair inference that the shelves of a retail grocery, no matter how careful the grocer, would ere long contain few cases of breakfast food that were free from bugs or worms, or both. In no instance would the customer be justified in eating the food without subjecting it to a microscopic examination, and in every instance it should be as fresh as possible, coming directly from the factory to the consumer, not subject to association with that manufactured some months previous, and almost certain to be infested by creatures that would relish nothing better than the change to new pastures in the fresh breakfast foods.

A brief summary of the result of his investigations follows: It has been shown clearly that the materials used in preparing the cereal breakfast foods are

wholesome grains, or some of their more valuable products, and that the addition of bran, corn cob, corn stalk, or similar foreign substances, sometimes said to be used as adulterant, is purely imaginary.

Furthermore the samples exhibited a good condition of dryness, but many were wormy when received.

In general, they exhibited no evidence of the use of bleaching agents, except in the case of a few pancake flours.

The test for tonic materials, such as strychnine, and also for morphine, were negative.

On the other hand, the net weights contained in the packages were most variable.

The representations concerning the chemical composition and nutritive value of the preparations were often very highly misleading and sometimes utterly reckless.

The cost of these foods is low, if they are regarded as confections to please the taste, but very high if they be treated as substitutes for the ordinary domestic cereal products.

FOOD SCORE CARD.

The following score card is now being used by the Kansas Board of Health in the enforcement of the Kansas Food and Drugs Law:

SCORE CARD.—SANITATION.	
GROCERY, Score, 10. Perfect, 100.	Ventilation and light.....
	Floor, walls, fixtures, screens, etc.....
	Refrigerator..... Butter and Cheese.....
	Bulk goods, vegetables..... Display goods in store.....
	Sidewalk display..... Cellar and cellar stock.....
	Backroom and yard..... Personnel.....
	Remarks..... Total.....
BAKERY, HOTEL, RESTAURANT. Score, 10. Perfect, 100.	Ventilation and light.....
	Floor, walls, fixtures etc..... Tools, machines, etc.....
	Kitchen, dining room, or display room..... Screens.....
	Refrigerator.....
	Water supply..... Sewerage or waste disposal.....
	Plumbing and general sanitation..... Personnel.....
	Remarks..... Total.....
MEAT MARKET. Score, 20. Perfect, 100.	Ventilation and light.....
	Floors, walls, Fixtures, screens, etc.....
	Refrigerator.....
	Blocks, instruments, etc.....
	Personnel.....
	Remarks..... Total.....
	REMARKS.

CHIEF FOOD AND DRUG INSPECTOR'S CARD.

Name of merchant.....
 City..... Street.....
 Date of inspection..... 190.....
 Character of sample.....
 Name of manufacturer.....
 Place of manufacture.....
 Sanitation.....
 Remarks.....
 Written?..... 1117 Inspector.....

In explanation thereof Dr. S. J. Crumbine, chief food and dairy inspector, says:

"Beginning January 1, the department of food and drugs of the state board of health put in operation a score card in the sanitary inspection of all places where food or drugs are manufactured, sold, or offered for sale, including groceries, drug stores, bakeries, restaurants, hotels, dining cars, wholesale jobbers in foods and drugs, bottling works, and all manufacturers of food and drug products.

"All places, products and things will be required

to be kept in a sanitary and wholesome condition, which condition will be noted on the score card with the proper grade, for the information of this department and all parties interested. The requirements of the law that only pure and wholesome products be manufactured will accomplish little, if such products be contaminated by unsanitary surroundings of the wholesale or retail dealer, or by dirty hands, clothings or tools of those required to come in contact with perishable products.

"The department will also insist that the dust from the street and the fly be abolished or reduced to a minimum, in all such places, and that the regulation as to sidewalk displays be observed.

"This is, we believe, the first instance where the score card has been used in food or drug inspection, and it is confidently hoped that the results will be as salutary as they have been in its use with milk inspection. Places and things that do not come up to a reasonable grade in this inspection will be held to strict account under the law."

THE PURE FOOD AND DRUG LAW IN SOUTH DAKOTA.

There has been for some time considerable speculation as to the sufficiency of the drug act in the Pure Food Law passed during the winter of 1907 by the South Dakota Legislature. The whole entire pure food law was re-enacted for the purpose of changing the title and the law to include drugs and medicines in the act and control the sale thereof. The title of the act reads as follows—An Act to Provide for State Food and Dairy Commission: To prevent the adulteration, misbranding and imitation of foods, beverages and condiments, candies, drugs and medicines, meats and fish, and to regulate the manufacture and sale thereof, and of dairy products.

Section 10 reads as follows: Sec. 10. Unlawful to Sell Adulterated or Misbranded Article. It shall be unlawful for any person acting for himself or as the servant or agent of any other person, firm or corporation, to manufacture, sell, offer or expose for sale any article of food which is adulterated or misbranded within the meaning of this act. The possession by any inn keeper, hotel keeper, restaurant keeper, or boarding house keeper of any food or drug which is adulterated or misbranded within the meaning of this act shall be deemed to be the keeping of such food or drug for sale.

Section 35 of the act, defines what shall be considered adulterated or misbranded drugs and requires a qualitative statement on each package of prepared medicines as to what it is composed. In other words, the interpretation of this law by the commissioner, implies that the ingredients of which it is composed shall be stated on the label in plain English language.

Section 36 provides, the penalty which is an exact copy of the old law, with the exception that the letter "s" was in some way omitted after section, thus making the penalty apply to section 35 alone, which is a definition of properly or improperly labeled drugs and medicines. In section ten the omission of the words "or drugs" after the word "food" in the first paragraph of the section, and the omission of the letter "s" after "section in section thirty-six, is the ground upon which the supreme court decided that the law was not sufficiently definite to enforce the provisions in regard to drugs and medicines.

The constitutionality of the law was not raised,

and the sufficiency of the law so far as foods are concerned was not questioned. In my opinion, it does not affect the food law, which applies to proprietary medicines and drugs. To test the sufficiency of this law, Mr. Brown of Sioux Falls, was arrested, who took appeal to the supreme court on a writ of habeas corpus, and won the case against the food and dairy commissioner.

It was the duty of the food and dairy commissioner, who does not pretend to be a lawyer, to enforce the law as he found it, and it was also his duty to assume that the law was sufficient, until decided by a competent court to the contrary. Since the court has decided that the law is insufficient to compel the labeling of so-called patent and proprietary medicines, as prescribed by the law, this feature of the law will not be enforced.

Yours truly,

A. H. WHEATON,

Food and Dairy Commissioner of South Dakota.

MASSACHUSETTS JOINS MICHIGAN.

Injunction restraining Commonwealth of Massachusetts from interfering with certain labels on maple syrup, or of threatening prosecution, etc., as in the recent case in Michigan, published in full in December issue of the AMERICAN FOOD JOURNAL:

Commonwealth of Massachusetts, Suffolk, ss. Supreme Judicial Court in Equity. New England Maple Syrup Company vs. Henry P. Walcott et als.

STIPULATION.

It is stipulated that until further order of the court, the respondents, each and all of them, their agents, servants, inspectors and representatives, shall not spread or utter any statements or representations to any individuals, firms or corporations that the labels displayed in their present form upon bottles or packages containing the syrups of the complainant do not comply with the provisions of the law of this Commonwealth, and shall not in any way interfere with the display, sale or manufacture of said products, and shall not state or represent to any individual, firm or corporation that the complainant or any customer of the complainant is violating any provision of the laws of this Commonwealth relating to the sale or labelling of its food products and shall not threaten any individual, firm or corporation with criminal prosecution if it or they sell or expose for sale any of the complainant's said food products.

This stipulation shall not be construed to prevent the respondents, their agents, servants, inspectors, or representatives from publishing or causing to be published in the official publication of the Board of Health, a certificate of the examination or analysis of syrup made by the authority of the said Board of Health during any proceeding month under and by virtue of Chapter 272, Acts 1902, or to prevent the respondents, their agents, servants, inspectors or representatives from instituting or causing to be instituted any court proceedings, civil or criminal, or procuring or causing to be procured any evidence or from testifying in said proceedings, or from doing any act or thing ordered by the General Court or either branch or any committee thereof.

The new West Virginia pure food law becomes effective this month. The law itself is sufficiently drastic to protect the consumer, but is defective in its administrative features.

THE TENNESSEE PURE FOOD LAW.

From and after January 1 the Tennessee pure food law goes into effect. This law proposes to protect the people of this state and incidentally those of other states from food and drug counterfeits, and if given full force and effect it is warranted to fulfill its duty.

"Be it enacted by the general assembly of the state of Tennessee, That it shall be unlawful for any person to manufacture within this state any article of food or drugs which is adulterated or misbranded within the meaning of this act, or to sell or give away the same; and any person who shall violate the provisions of this act shall be deemed guilty of a misdemeanor, and for the first offense shall, upon conviction thereof, be fined not to exceed \$500, or shall be sentenced to one year in the penitentiary of the state, or both fine and imprisonment, in the discretion of the court; and for each subsequent offense, upon conviction thereof, shall be fined not more than \$1,000, or sentenced to not more than two years in said penitentiary, or both such fine and imprisonment, in the discretion of the court, etc."

So reads the law. It goes on to explain what is meant by "adulterating" drugs and food and what is "misbranding" an article. It is explicit, but full and complete. Better still, this act provides for an official whose especial duty it is to keep vigil where the people's food and drugs are concerned. He is amply equipped with paraphernalia and power, and it will be odd indeed if in the future Tennessee should suffer at the hands of those who thrive through counterfeiting the people's food and drugs.

The law says: "To more fully enforce the provisions of this act, there should be appointed by the governor a person who shall be a chemist of established reputation and ability," and who "shall be required, through purchase or otherwise, to obtain samples of all food and drugs manufactured or sold in this state." He shall inspect them, analyze them and prosecute wherever and whenever the occasion for prosecution arises.

It is this office that Memphis asks of the governor. Memphis is entitled to it for many and forcible reasons, and we submit to the governor that Memphis ought to be remembered by him.—Memphis, Tenn., Commercial Appeal.

EXPRESS COMPANY AIDS KANSAS FOOD LAW.

The Wells Fargo & Company Express Co. have issued the following instructions to its agents in Kansas relative to shipment of oysters:

THE KANSAS FOOD AND DRUGS LAW.

Kansas City, Mo., January 1st, 1908.

To Agents:—Please be advised that the State Board of Health, at its quarterly meeting in November, 1907, adopted a standard for oysters sold or offered for sale in Kansas, which standards in effect exclude the addition of water either from melted ice or added in any other way, as in conflict with Section No. 7 of the Kansas Food and Drugs Law.

Therefore, you must not dispose of oysters refused by consignees or consigned for disposition, that have been refrigerated by ice being added to oysters, such as necessarily obtains in the method of tub shipments.

The Department of the State Board of Health will hold agents responsible for the sale of adulterated and sub-standard oysters, where the sale is made in Kansas, to the same extent as local dealers or job-

bers will be held, if you dispose of consignments refused or otherwise.

This in effect means that oysters can be sold only in their natural juices and we will be governed accordingly in their transportation in the enforcement of the Food and Drugs Law of Kansas.

R. A. WELLS,
General Manager.

KANSAS EDUCATIONAL EXHIBIT.

The following newspaper article sent by Mr. Kleinhaus, state pure food inspector in Topeka, Kans., gives a description of the Kansas Board of Health demonstration at the Mid-Winter Exposition to be held in Topeka, January 25th:

KANSAS HEALTH BOARD WILL EXHIBIT ADULTERANTS.

One of the most interesting of the attractions at the Mid-Winter Exposition next month will be a "Pure Food and Drug" demonstration under the supervision of the State Board of Health. Dr. S. J. Crumbine, secretary of the board, and the head of the pure food and drug department, has made arrangements with Manager Brigham for a large booth at the Auditorium during the exposition.

Dr. Crumbine will be in charge of the preparation, but John Kleinhaus, the Topeka pure food inspector, and two assistant food and drug analysts from the State University will be in direct charge of the booth. The purpose of this demonstration is not to advertise any particular brand of foods nor to injure any particular brand. It will be an educational work with the idea of helping consumers to determine whether or not the foodstuffs they purchase are pure.

No product will appear under their original labels. They will be emptied into jars and placed on exhibition. There will be pairs of nearly every food sold in the state. For instance there will be pure jelly and beside it will be a jar that is pure but colored. By comparing these the people who attend the exposition will be able to make up their minds as to the appearance of pure jelly.

The same program will be carried out with other products. There will be pure and impure jams, canned fruits and vegetables. There will be displays of the different grades of coffees, both roasted and green. The real names of the coffees will be given and their respective values will be given.

"There is one thing that I want to call particular attention to," said Dr. Crumbine. "We will have charts on display explaining the labels on different products. I have discovered that half the people do not know the significance of a label. For instance a label reads, 'Maple-Cane Syrup,' another reads, 'Cane-Maple Syrup.' The average person does not know just what this means. Our charts will show that manufacturers in printing their labels put the name of the principal ingredient first. 'Cane-Maple Syrup' means that the syrup is mostly made from cane but that it is mixed with maple. The opposite is true of the other label. There are dozens of tricks in labels and we will demonstrate these things at our booth."

Dr. Crumbine has decided upon a novel display for the purpose of showing the different kinds of coal tars used in food products. He will have a Pure Food maiden dressed in white cloth. The maiden will consist of one of the wax figures from a dry goods store. Her clothing will be colored in all the colors of the rainbow with coal tar dyes extracted from foods sold

upon the market. There will be a spot colored with dye taken from tomato catsup. There will be dyes from every other food product in which it is used.

There will be a display of the different preservatives used and their effect will be demonstrated. There will be a display of oysters. One display will show the oysters as they come from the shell-standard oysters containing the correct amount of solids. Beside it will be a jar of oysters as they were sold before the new law went into effect—two-thirds water and the balance poor oysters.

Dr. Crumbine also plans to demonstrate what standard milk really is. He will have milk that complies with the standards in every respect and beside it will have milk of the same standard from which the butter fat has been separated. He will have the correct quantity of cream from a stipulated quantity of standard milk. After looking at this a consumer of milk will be able to determine what amount of cream standard milk should have upon it. There will also be jars of milk that has been watered. There is a noticeable difference in the appearance of such milk and standard milk when placed side by side.

In addition to these and dozens of other food exhibits there will be a drug display. There are dozens of "orphan" patent medicines on the market in Kansas—medicines whose manufacturers have died or gone out of business. Dr. Crumbine will take some of these patent medicines and show how they deteriorate with age; how some of them become actually poisonous. He will show what their ingredients are and how impossible it is for them to be of any benefit to the human body.

"This is purely an educational proposition," said Dr. Crumbine. "We want the people of the state to understand what pure food and pure drugs are and to know impure and adulterated stuffs when they see them. We will show how people in their own homes can test foodstuffs and determine whether or not they are pure. In order to make the new laws effective we must have the co-operation of the consumer and before he can be of any assistance he must understand how to recognize adulterated foods. We have no desire to advertise the products of anyone and will not. There will be no original labels to indicate where the materials we put on display were purchased or manufactured. This rule will work alike on the manufactures of pure and impure foods. We handle manufacturers of impure foods direct from our office and will not attempt to cast any reflection upon the manufacturers of adulterated goods at this public exposition."

This display will constitute the nucleus of a permanent museum to be maintained at the State house by the State Board of Health, and will add another very interesting feature at the capitol. An exhibit of this kind will prove of great value in educating the people with regard to food products, a subject about which many are uninformed. There is no doubt but what this is a move in the right direction and that this exhibit will do much towards enlightening the people of Kansas with regard to the great good that the Board of Health is accomplishing.

The exhibit of the Kansas Board of Health should stimulate and keep awake the interest in pure and properly labeled foods. There is no question but that the public need demonstrations of this sort both to shatter the erroneous impressions produced by the sensationalist and muck rakers and to illustrate the

real abuses and the ways of remedying and avoiding them.

It will be seen from the description that the demonstration is of the same general character as that of the Minnesota Dairy and Food Commission, at the Minnesota State Fair, the Elks' entertainment and the Woman's Convention, and of Dr. Eaton's at the Illinois Convention of Woman's Clubs and the World's Pure Food Exposition. In Kansas, however, a full life size dummy model becomingly dressed in clothes colored from dyestuffs extracted from foods will take the place of the American dolly.

IS THE ETHIOPIAN IN THE FUEL.

Bulletins six and seven, issued from the State Food Commissioner's office, offer some interesting impure food for thought to the taxpayers of this great State of Illinois as well as to the honest manufacturers of pure butter who seem to be paying a penalty to the fakirs and a fat salary to their representative.

"Bulletin 6," credited to Assistant Schucknecht, deals only with that infamous mixture very properly taxed and licensed by the government, known as oleo-margarine, and in a mild and inoffensive way decries its masquerading as butter and being sold to Chicago citizens as such, although the Assistant Commissioner, who is supposed to keep it restricted to its legitimate place, has not been able to do so during his tenure of office, and yet has the effrontery to come before the public in masquerade costume.

Peculiar though it may seem, Bulletin No. 7, by Commissioner Jones, came out before Bulletin No. 6, and deals with not only oleomargarine, but also "Process Butter," which is generally understood the assistant commissioner refused to include in "Bulletin 6," for reasons possibly best known to himself, but as yet not satisfactorily explained, and why he should not have joined Commissioner Jones in his straight from the shoulder denunciation of renovated butter is not understandable.

There is no more imposition on the public at the present time so bald and bare faced as the crime of renovated butter; the mixtures of this refuse call it "Process," possibly because the name does not jar on the public's sensibilities quite so harshly and does not indicate that the original material was so foul and unsanitary as to require renovation, before offering it to a possible purchaser. The editor, while waiting in a country store some time ago, noted the proprietor taking packages from his rural patrons and throwing them, paper and all, in a dirty barrel, and later ramming them down with a big stick that had done service for many moons. Upon inquiry he was told it was butter and that when they collected several barrels it was shipped to Chicago to the renovators. Now how many people would like to eat that stuff, even after it had been renovated? Yet it is offered in a majority of stores, and sold as creamery butter notwithstanding the laws regulating its sale, and the refusal of the assistant commissioner to join Commissioner Jones in a crusade to rid the market for pure fresh creamery butter of its most insidious enemy, and give the public a chance to get what it wants and is willing to pay for.

Really his action is one of the most remarkable proceedings we have ever heard of a pure food official taking, and one so apparently reprehensible, that

it seems impossible that the government will fail to take quick and drastic action.

Millions of dollars are invested in the production of pure creamery butter in Illinois and because of the many natural conditions it should rank as the first dairy state in the union. But why waste effort and money and pride in building up an industry to compete with refuse rejuvenated, so protected as to lessen the pure goods' value by millions of dollars, and what incentive has the honest man for venturing his capital in a legitimate industry as against a fraud. It seems pretty plain after a perusal of these bulletins that Commissioner Jones proposes to see that the creameries get a fair deal, and although somewhat tardy perhaps in taking up this matter he deserves due and unqualified credit for nailing renovated butter to the cross, and forcing it to be sold for just what it is.

That is all the creamerymen ask, sell oleo and renovated, under their proper labels, for just what they are, nothing more and nothing less.

Commissioner Jones in Bulletin 7, admits that his department is for that purpose, and that it has failed in its enforcement. But we can readily understand why then we consider the stumbling blocks thrown in his path of duty by those who are intrusted with assisting him in fulfilling it.

Personally we would dislike to run for governor before the creamerymen of this state and have to stand for the appointment of a man who could fall so far short of what such a great industry is entitled to and has a right to expect.

Is there a nigger in the woodpile?—The Milk News.

"LOOK FOR THE PURPLE STAMP."

"It is the more dangerous to allow meat to be sold without inspection because of the strange fact that the finest specimens are the most often affected. Perhaps the government finds this true because unscrupulous breeders are unwilling to lose their finest hogs and cattle, even if they know them to be infected. It is not often one finds a breeder who will sell diseased cattle, but his good intentions don't cure the diseased animal. When these affected carcasses are sold to the butcher, he of course, can judge only of the quality of the meat. So that the only safe way for the consumer is to see that the meat he buys is from a piece branded with the purple label of the government. We are federal officers free to condemn whatever is in our judgment unfit for food. The packer stands the loss. So that, granting that we have the necessary ability, we are practically sure to catch any affected animal sort with the system of inspection now so well organized by the bureau."

Look for the United States purple stamp! There are two sorts. One is a small square put on with a piece of gauze but the one generally used is the large oval with the inscription "U. S. inspected and passed." Inside these two lines is the number of the inspecting force, showing where the meat came from. These stamps are put on from a dozen to twenty times on every beef, hog, sheep or other animal. A ham or a side of bacon has the stamp branded in. All inspected meats are stamped. See that the butcher cuts your portion from it. The United States purple stamp means meat free from disease. No one knows about the meat that is not inspected. Look for the purple stamp!—Dr. Miller, U. S. Meat Inspector.

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THE PUBLIC AND THE LABEL.

A manufacturer of foodstuffs in Springfield, Ill., in order to prove his contention that the public seldom read the label on the package had a number of labels printed containing such statements as these: "This catsup is made from turnips and potatoes but is well colored and properly seasoned." "These pickles were colored with paris green." "This pure olive oil is really the product of the cotton plant but we warrant it strictly pure." "This is make-believe delicious apple jelly." These labels he placed on pure goods and in collusion with a grocer offered goods so labeled to the public. The goods, according to the grocer, were sold and not one purchaser knew what was printed on the labels.—Q. E. D.

But was the experiment carried far enough? Undoubtedly the busy man or maid relying on the integrity of their family grocer might purchase a package of pickles blindfolded. One does not care even in a round about way to infer that a man is a liar by searching for contradiction to his statements on the label of the goods purchased. But this is not saying that the housewife, when she unwraps the goods will not notice the statements that the pickles are colored with paris green and if she does the grocer had better find a sucker, sell his grocery store and go back to the farm.

The label is liable to lie around the house a long time. No matter how fine the print or how inconspicuous the place, some one is almost sure to discover that little depreciatory sentence.

Of course the statement of inferior quality or adulteration may be made in such an inconspicuous way and place as to escape general notice.

Many state food laws compel the labeling of alum baking powders and a close examination of many brands disclose the words "This powder contains alum" in fine print on a background of nearly the same color as the ink and at that particular part of the label which will be broken in removing the cover. This kind of a label is no protection to the public and those state laws that prescribe that the statement of inferior quality shall be just as conspicuous as the name of the article are to be commended as also the regulations on this point by the Secretary of Agriculture, although, unfortunately, the National Food Law was drawn with "such cunning ingenuity" as to

relieve alum baking powder manufacturers of any particular concern in its enforcement.

It is possible that many people will not except the protection afforded by the label of foodstuffs. Such people, however, will not receive much sympathy from the public. The state should protect its citizens against fraud and misrepresentation in the sale of foodstuffs. It should assist them to learn the alphabet and to read. But it cannot be expected to make them apply their knowledge against their will.

KANSAS DEFINES VINEGAR.

Kansas, too, has outlawed low wine or distilled vinegar. In other words, it decides that "Vinegar" means only cider vinegar. We are prepared to learn that in Kansas, meal means oat meal, meat means mutton, cheese means cheddar cheese, jelly means apple jelly, wine means sour wine and whisky "straight" whisky. No credence is given the dictionaries that the origin of the name vinegar refers to sour wine, but the Kansas Board of Health insist that it is derived from "vine," Kansasian for "apples" and "gar" signifying "refuse" or "rotten." The people of Kansas and their representatives have no doubt the right and the privilege of reconstructing the English language to suit their convenience or interest, but in this particular instance is the ruling in the interest of the state? Not in the interest of the purchaser surely, as he wants to buy the purest goods at the least cost. Not in the interest of the producer for in Kansas corn is king, not decayed apples, and one of the most popular vinegars is made from corn. Then, too, there is malt, glucose, honey and sugar beet vinegar, all directly or indirectly products of the farm, together with wine and beer vinegar occasionally offered for sale. Possibly our Kansas friends are lead into the delusion that only the most expensive is worth having. This does not always follow in foodstuffs, in fact, the reverse is usually the case; the cheapest foods are the most wholesome. But cider vinegar is by no means the most expensive vinegar, as true malt vinegar, tarragon, walnut and several other fancy flavored varieties are quoted at higher figures. Wouldn't it be wise for the Kansas people to cuddle up to the bottle and keep quiet until they have the opportunity to investigate and digest the regulation of Minnesota, Massachusetts, Michigan, Wisconsin, New York and Ohio, states which have enforced food laws for a quarter of a century and where more apples are grown than in Kansas and the rest of the world outside?

MEAT EXPORTS FALLING OFF.

The exports of meat products as compiled by the Department of Commerce and Labor show a decided falling off in the exports of meats during the eleven months ending November, 1907, compared with the same months of 1906, both in quantity and value. The value of the total animal products in 1906 was, in round numbers, 208 million dollars; in 1907, 194 millions.

But it was in the preserved meats that the greatest falling off in exports of meats occurred. Thus in 1906, 69 million pounds of cured beef products were exported; in 1907, but 47 million.

In 1906, 327 million pounds of meat were exported; in 1907 but 188 million. Ham and other pork products more than held their own. But the most interesting story the figures tell is the enormous reduction in the

foreign demand for oleomargarine, butter and cheese. Nine million pounds of oleomargarine have been reduced to three million; 23 million pounds of butter have been reduced to 3 million; 20 million pounds of cheese have been reduced to 8 million.

The butter export trade of this country has been whittled to nearly nothing; the cheese export trade to a mere bagatelle.

That is what a newspaper lie widely circulated will do to trades not directly connected. Incidentally these figures will show why butter is not the price it should be in comparison with other products.

CEREAL MANUFACTURED FOODS.

The Food Commissioners of Kentucky, Wyoming and Massachusetts have investigated "breakfast food" within the last two years. The latest widely advertised investigation was made by the Pennsylvania Food Commission, the general results of which are furnished by Commissioner Foust for this issue of the American Food Journal. It will be seen from this contribution that conditions in this article of food are not greatly different from those existing in 1904, when Dr. Ealon made the following report to the Illinois Food Commissioners.

Prepared breakfast foods are the fad of the day. A few of the numberless varieties were inspected and analyzed. As a general rule nothing was found injurious to health or in conflict with the claims of manufacturers except as to the nutritive value of their product. In some cases the food represented as thoroughly cooked contained raw starch granules. In the majority of cases, however, both in the flaked and granulated forms, the starch was completely dextrinized. In a number of samples the food was placed in a pasteboard box without lining or inside wrapper of any kind. Besides the liability to absorb moisture and to mold, there is a possibility that the gaudy color profusely spread on the outside of the box will contaminate the food on the inside, and this possibility becomes a certainty should the box become damp. These colors are sometimes mineral (ultra marine) and sometimes aniline, and not being intended for food probably are of a poisonous nature and contaminated with arsenic, which is commonly used in the preparation of the cheaper aniline dyes.

The same danger exists in serving foods in green colored paper cups, as for example sauces and relishes, which is a common practice in the more expensive class of restaurants. The danger is aggravated by the fact that the vinegar in the sauce often dissolves the color, which is then taken with the food.

Most manufacturers of cereal foods make exaggerated claims as to the food value of their preparations.

* * *

While some allowance should be made for the unfamiliarity of the public with scientific terms, and still more for the zeal of the manufacturer in pushing his product, such misrepresentations should be discounted, as they can do more harm than the fairy stories of the merchants in other lines of trade.

We will send any Food Control official a framed group photograph of the delegates to the last convention of the Association of State and National Food and Dairy Department free of charge upon application.

NEW CALIFORNIA FOOD LAW.

The California food law went into effect the first of January. The enforcement of this law is placed with the State Board of Health in co-operation with the sheriff of each county of the state. Dr. N. K. Foster is secretary of the State Board of Health and Prof. M. E. Jaffee director of the laboratories.

Prof. Jaffee is one of the foremost chemists on the coast. When chemist of the California Experiment Station he made many classical studies of foods from a dietetic standpoint, but up to the present time has not had a large experience in the detection of adulteration in food. The enforcement of the new law will probably keep the chemist busy for a time, particularly if San Francisco follows the lead of its western rival, Portland, the health commission of which city complained bitterly because Commissioner Bailey and his chemist were not willing to say from an examination of the milk what ailed the cow.

STOCKS CHEAP FOOD DEAR.

In view of the high price of food and the low price of securities, it has been suggested that we pull our money out of woolen socks and invest it in industrial stocks—

Railroad, mining and manufacturing stocks have never been as low as now. Within the year they have depreciated over one hundred per cent. Food, on the other hand, has never been as high unless in the time of civil war, when there was some question as to the value of the currency offered in exchange.

The idea seems a good one. Industrial securities have surely reached the lowest level and must rise in value. Food on the contrary has suffered as much as possible from the muck-raker and the destroyer and must become cheaper. The logic is irresistible, buy stocks and starve.

The Pharmaceutical Era comes out in a new dress the 1st of January. It is 21 years old, therefore of age, and can choose for itself particularly in the matter of dress, but the old style was good enough for its many friends among the druggists. The new firm and type, however, are an improvement and all the features are retained, which have made the periodical popular. "May it live long and prosper."

According to the papers, Hon. Joseph Blackburn—"Uncle Joe" in Ohio—formerly Dairy and Food Commissioner of that state, aspires to represent Ohio in the U. S. Senate. Should Senator Foraker step into the presidency, he has a fair chance to realize his ambition. Julius Fleischmann, however, may be heard from when the time comes.

The holiday number of "The Breeders' Gazette" appears bigger and better than ever. It is the custom of this periodical to get out a superbly illustrated edition during the stock show and the financial situation did not prevent the progressive publishers from even surpassing their previous efforts in getting out an unusually attractive and valuable issue.

Portland, Ore., is seriously contemplating the establishment of a municipal laboratory to aid in the inspection and analyses of foodstuffs.

The Arkansas food law went into effect at midnight January 1, 1908.

COURT DECISIONS

CONSTRUCTION OF NEW YORK LAW WITH REGARD TO MISBRANDING.

The supreme court of New York, appellate division, fourth department, says that the sole question presented on the appeal in the case of *People vs. Luke*, 106 New York Supplement, 622, was whether the complaint stated facts sufficient to constitute a cause of action. It was alleged therein that, on or about a certain date, the defendant, at his place of business, "sold, offered for sale, and exposed for sale an article of food named and designated as 'tomato catsup,' which catsup was labeled as follows: 'Prepared from whole, ripe tomatoes, no artificial color, and contains one-tenth (1-10) of soda benzoate.' That such catsup, branded and labeled as aforesaid, was adulterated and misbranded, in that same contained benzoic acid and was artificially colored, and that, instead of containing one-tenth of soda benzoate, it contained twenty-two one-hundredths of 1 per cent thereof, all of which was and is in contravention and violation of Sections 164 and 165 of the agricultural law [Laws 1903, p. 1191, c. 524], being Chapter 33 of the General Laws of the state of New York."

Section 164 of the agricultural law provides: "No person or persons, firm, association or corporation shall within this state manufacture, produce, sell, offer or expose for sale any article of food which is adulterated or misbranded within the meaning of this act. The term 'food' as used herein shall include all articles used for food, confectionery or condiments by man, whether simple, mixed or compound."

The language of the section is broad and comprehensive, and it is clear that the acts alleged to have been done by the defendant fell within its condemnation, unless permitted by Section 165 of the agricultural law. Section 165 defines the meaning of the word "misbranded." It provides: ". . . An article of food shall be deemed to be misbranded: First. If it be an imitation of or offered for sale under the distinctive name of another article. . . . Third. If the package containing it or its label shall bear any statement regarding the ingredients or the substances contained therein, which statement shall be false or misleading in any particular, or if the same is falsely branded as to the state or territory in which it is manufactured or produced: Provided, that an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases: First. In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food, under their own distinctive names, and not included in definition first of misbranded articles of food in this section. Second. In the case of articles labeled, branded or tagged so as to plainly indicate that they are mixtures, compounds, combinations, imitations, or blends: Provided, that the same shall be labeled, branded or tagged so as to show the character and constituents thereof . . ."

The fair meaning of the section is that any article of food is misbranded when it is an imitation of and offered for sale under the name of another article,

and the court thinks neither of the exceptions had any application. To illustrate: Oleomargarine is an imitation of butter. If it is branded and sold as "butter," which is the distinctive name of another article of food, the statute, the court thinks, must be held to prohibit the offering for sale of such article of food in such manner. The provision in the section, marked "Third," prohibits the seller or person offering for sale from putting any statements upon the label regarding the ingredients contained therein which are false or misleading in any particular. The court thinks neither of the exceptions to which attention has been called in any manner permits the seller or the person offering for sale to put upon the label statements which are false or misleading in any particular. In other words, the court concludes that a person who offers an imitation of food for sale under the distinctive name of another article of food is liable under the agricultural law. To illustrate: The person who sells or offers for sale oleomargarine under the name of "butter" is guilty of a violation of the statute. The court also considers that, if any package or its label shall bear any statements regarding the ingredients or the substances contained therein which are false or misleading, the person so selling or offering such package for sale is guilty under the statute. This conclusion is clearly correct, unless the exceptions which have been quoted permit another course of action to be followed.

It is further provided in the section: "That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases." Then we come to the first exception, which provides in substance that in cases of mixtures or compounds which may be known as articles of food under their own distinctive names, and not included in definition first of misbranded articles of food, which is where an imitation is sold for the real article, the section does not apply. In other words, under that exception it is clear that a person might manufacture, sell, or offer for sale oleomargarine, if it did not contain poisonous or deleterious ingredients, provided it was sold as oleomargarine, and not as butter.

So far as the second exception is concerned, it is provided that a food shall not be deemed to be misbranded in case the article of food is labeled, branded, or tagged so as to indicate that it is a mixture, compound, imitation, or blend, provided the same shall be labeled, branded, or tagged so as to show the character and constituents thereof. So that the court concludes that the fair meaning and interpretation of the statute is that it is not permissible to sell or offer for sale an imitation of a food under the distinctive name of another food under any circumstance whatsoever. The case of selling oleomargarine as butter illustrates the proposition as well as any other, and the court thinks is clearly prohibited by the statute. The other act which is prohibited absolutely by the statute is the labeling or branding of an article of food falsely and in such manner as to indicate that it contains certain ingredients in certain proportions, contrary to the fact; and in such case the court considers that it is entirely immaterial whether the imitation or compound offered for sale contains ingredients deleterious to health or not. The exceptions in this section in no manner affect either of those propositions. By such exceptions it is permissible for a

party to sell or offer for sale "Quaker Oats," if it contains no poisonous or deleterious ingredients, or if no label or brand is placed thereon which assumes to give the ingredients of such article of food. But if the seller or person offering to sell assumes by label to give the ingredients of which such "Quaker Oats" is composed, he must state them truthfully, else he is guilty of a violation of the statute.

Where articles of food are labeled, branded, or tagged so as to indicate that they are compounds, combinations, imitations, or blends, there is no liability under the statute, provided the same shall be labeled, branded, or tagged so as to show the character and constituents thereof. Thus construed the court thinks the provisions of the statute are consistent, are reasonable and beneficial, and, if the court is right, it followed that the defendant violated the statute, because the statement put upon the label upon the goods in question was false, in that it stated that it contained no artificial color, when in fact it did, and in that it stated that it contained one-tenth of soda benzoate, whereas it contained twenty-two one-hundredths of 1 per cent thereof, and also in that the article in question contained benzoic acid, not mentioned in the label.

SALE OF SKIMMED MILK UP TO STANDARD IN CONTENTS PUNISHABLE BY AC- CUMULATED PENALTIES.

The supreme court of New York, appellate division, first department, says that the defendant in the case of *People vs. Koster*, 106 New York Supplement, 793, collected milk at his creamery, and had it shipped to New York, where he sold it in cans. It was the habit of his employes, in the morning prior to each shipment, to take from each can at the creamery about two quarts of cream, and then to fill up the can with milk from other cans from which the same quantity of cream had thus been taken. The evidence showed, upon two days, 25 separate and distinct sales to as many individuals, to whom were sold in all 36 separate cans of skimmed milk.

The defendant's acts were precisely within the letter of the New York agricultural law. Section 22 of that law provides that: "No person shall sell or exchange or expose for sale or exchange . . . any . . . adulterated or unwholesome milk," etc. And Section 20 provides that: "The term 'adulterated milk' when so used [i. e., in the act] means: . . . (5) Milk from which any part of the cream has been removed. . . . All adulterated milk shall be deemed unclean, unhealthy, impure and unwholesome." Thus it clearly appeared that the defendant sold milk declared by law to be adulterated and unwholesome.

It was testified to by a chemist called by the plaintiff that the milk sold by the defendant came up in other respects to the requirements of the law; that is, that it contained no more than 88 per cent of water, and the requisite percentage of solids and fats. He also testified that such milk was in fact wholesome, and not deleterious.

The defendant claimed that in so far as the act prohibits the sale of wholesome milk, merely because it had been deprived of some of its richness, it was unconstitutional. But the act is aimed as well at fraud in the sale of milk as at unwholesomeness. Whether the milk, after the cream had been taken

from it, was or was not unwholesome, it was evident that the defendant was guilty of fraud towards his customers, for there was nothing to show that he ever sold it as milk from which the cream had been taken. He said that he sold it as "standard" milk. The statute contains no definition of "standard" milk, and it was evident that all the defendant meant was that he sold it as milk having the prescribed percentage of water, solids, and fat.

Nor does the court agree with the defendant's contention that he should not have been subjected to more than one, or, at most, two penalties. It says that the language of Section 37 of the agricultural law is very comprehensive and precise, and in the court's opinion, expressly provides for the collection of more than one penalty in a single action. It provides that: "Every person violating any of the provisions of the agricultural law shall forfeit to the people of the state of New York the sum of not less than fifty dollars and not more than one hundred dollars for the first violation, and not less than one hundred dollars or more than two hundred dollars for the second and each subsequent violation. . . . When the violation consists of the sale . . . of any prohibited article or substance the sale of each one of several packages shall constitute a separate violation. . . ."

The provision for one penalty for a first violation, and for a different penalty for the second and each subsequent violation, coupled with the explicit provision that the sale of each package shall constitute a separate violation, can be construed only as providing that more than one penalty may be collected when the defendant has been guilty of a series of violations. If this was the legislative intent, these accumulated penalties can certainly be enforced in a single action; for to require a separate action for each separate violation would impose both upon the state and the defendant a useless burden of litigation. This was not the case of a suit by a private individual for his own gain and to enforce a private right, as were all the cases relied on by the defendant, but the case of an action by the state to compel obedience to a state health law, enacted for the protection and benefit of all the people of the state.

In some of the cases to which the court was referred the court has evidently been impressed with the enormous sums that might be recovered, if each plaintiff was permitted to recover accumulated penalties, which frequently would have resulted in imposing upon the delinquent defendant a punishment out of all proportion to the injuries suffered by the plaintiff. This consideration did not apply to the present case. While the judgment, abstractly considered, was not inconsiderable, the evidence afforded data from which it could readily be computed that the value of the cream which the defendant filched from the milk during the period that he pursued his illegal practices must have amounted to many times the sum for which the jury rendered a verdict. If accumulated penalties might not be collected in cases like the present, it is manifest that dishonest dealers could well afford to take great chances of discovery and prosecution, and thus the enforcement of the statute would be rendered most difficult and uncertain.

"You say you are a chef?"

"Yes; I roast the chestnut an' cook the peanut."—
Chicago Journal.

MICHIGAN SUPREME COURT DECISION ON SAUSAGES.

STATE OF MICHIGAN.

The Circuit Court for the County of Ingham. In Chancery.

Armour & Company vs. A. C. Bird, et al.

Opinion upon motion for temporary injunction.

Complainant, manufacture and sell to retail dealers in this state meat products called sausages. Defendant Bird is the dairy and food commissioner of this state and the other defendants are employees of the commissioner and I shall in this opinion treat Mr. Bird, the commissioner, as the defendant. In the manufacture of sausages sold in this state, complainant, with the meat used, employs from one to ten per cent of cereal and some water and this product is sold to customers over the meat counters by retail dealers as sausage without any information to the customer that he is buying other than chopped, spiced meat. Defendant claiming to act under the provisions of the pure food laws of this state has declared such product to be in violation of such food laws and has threatened to prosecute persons selling the same, unless they desist. Complainant contends its sausages are composed of pure and healthful ingredients, and that the dealer buying from it is informed they contain cereal and that defendant has no warrant for his action against the sale of the same. Upon the filing of the bill of complaint an order was made requiring the defendant to show cause why he should not be restrained from warning dealers in this state that sausage with cereal cannot be sold without such sale being a violation of the pure food law. No food law can prevent a man from buying meat—cereal—sausage—watered if he wants to, but food laws can prevent the sale of a well known food under an untrue name. The Federal inspection and approval of complainant's sausage products as between the maker of the same and the retail dealer with notice on the package of cereal in its makeup may protect such maker and the purchasers under the law of interstate commerce but cannot be invoked against the laws of this state regulating sales between citizens of this state. May this sausage be sold as such in this state by retail dealers without any disclosure to the consumers that they are buying meat, cereal and water? What the law ought to be has nothing to do with the matter, for what the law is determines the question of injunction, or no injunction. The food commissioner as such, being but a creature of the statute has no authority except by statute and we must look to the provisions of the food law in order to ascertain whether in doing the acts complained of, he has exceeded his authority. The law makes it the duty of the commissioner to carefully inquire into the food products and their constituents offered for sale in this state to take samples and have the same analyzed, and if the same are adulterated, impure or unwholesome in contravention of the laws of this state to prosecute the manufacturers or venders thereof. He may seize and by proceedings pointed out in the statute cause adulterated food products to be condemned and destroyed. The commissioner is required by law to prepare an annual report to the governor, covering the doings of his office for the preceding year, and also prepare print and distribute to all the papers of the state and to such person as may be interested or may apply therefore a monthly bulletin containing results of inspections, the results of analy-

ses made by the state analyst with popular explanation of the same, and such other information as may come to him in his official capacity relating to the adulteration of food and drink products so far as he may deem the same of benefit and advantage to the public. The statute defines what constitutes adulteration and one of the principal things condemned is the mixing of any substance with a well known article of food, so as to lower or depreciate its quality, strength or purity, and also condemns as an adulteration the substitution of any inferior or cheaper substance in whole or in part for the article it purports to be. Cereal is cheaper than meat and water cheaper than cereal, and to sell chopped meat and cereal and the water it will take up as sausage to people who have a right to understand sausage is chopped meat seasoned, falls so clearly within the term of a cheaper substance than the thing it purports to be that if sold, it must be under its true name. If as claimed, the proviso of the act permits the sale of such article of food, it only does so upon the condition that each and every package sold bear the name of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and concisely show it is a mixture or compound, and it is not enough in order to comply with the law that the information stop with the retail dealer, for it is the consumer the food law also attempts to protect. This court should be slow to assume supervision over the administrative duties of a departmental official of the state, and the case must be clear and for the correction of an abuse before the strong arm of the court reaches out and stays the dairy and food commissioner from the exercise of what he claims to be a duty of his office. In case the food commissioner goes beyond his authority and through a mistaken notion of his official duties, injures one within the law, then the court's plain duty is to put him right and by injunction command him to stay right. It is very doubtful whether the commissioner has first the power to find out an offender and then forgive him upon his promise to offend no more. The law itself leaves him no such alternative, it in plain language directs him to prosecute, and the object of the law is too plain to deserve explanation. If prosecutions follow when offenders are caught, dealers will not leave it for inspectors to determine whether they are observing the law or not, but will take it upon themselves to determine to sell within the law. But this does not help very much for we must get back to the question of whether the sausage made by complainant may be retailed in this state as sausage without notice to the consumer of cereal and water in its composition, for if the sale is in violation of the food laws, it makes but little difference whether it is the dairy and food commissioner, the newspaper, or an individual that warns the public and the retail dealers of that fact. The statute against adulteration of food products is not as limited in its scope and operation as argued for complainant. Its purpose is to prohibit adulteration and to prevent fraud and deception in the manufacture and sale of articles of food. With this generation largely reared upon farms and in small villages and who remember the home made sausage or the sausage made at the village meat market, there is no occasion to look at the dictionary in order to define sausage. The common understanding if sausage is that it is chopped meat seasoned, and this understanding must control as against the manu-

facturer's process of adding cereal and water until the dealers by publicity of their change in its make-up let the purchasers know that their sausage is chopped meat, cereal and water seasoned. The court has endeavored to reach a solution of the question of whether the preliminary writ ought to issue without touching so much upon the merits of the case, but the bill of complaint and the showing against the granting of the writ and the arguments of counsel upon the hearing have made it necessary to do so and to touch upon the law applicable to the case, but it is to be understood that this opinion in no way forecloses the consideration of the merits upon the final hearing and the determination then and not now will finally govern the parties and their rights. I am of the opinion that the preliminary writ of injunction ought not to issue and therefore deny complainant's application for such preliminary writ, and the restraining order heretofore granted is revoked. This case should be heard upon the merits at an early date and that this may be done, the court now directs that it be heard early in January, and if the parties cannot agree upon a date, the court will upon the application of either party fix a date for the hearing, and in the meantime, it is recommended, rather than commanded, that the commissioner refrain from doing the things complained of.

HENRY WIEST,

Circuit Judge.

THE SOUTH DAKOTA DECISION.

The court holds in effect as follows on the contentions in the case: "The complaint shows that on the 2d day of December, 1907, at the City of Sioux Falls, R. F. Brown did then and there, being a druggist engaged in the business of selling drugs and medicines, wilfully, wrongly, and unlawfully offer and expose for sale, and unlawfully sell to A. H. Wheaton, certain prepared medicines, to wit: One bottle of Peruna, one bottle of Hamburger drops, one bottle of Chamberlain's diarrhea remedy, one bottle of Piso's consumption cure, one bottle of Kodol, and one bottle of Dr. King's new discovery, all of said prepared medicines being then and there misbranded, in that none of the said medicines bore a qualitative statement of what it was composed.

"Whether the act complained of constitutes a public offense depends upon judicial power to supply certain terms claimed to have been inadvertently omitted by the legislature, and which subject the petitioner to the operation of a penal statute, in which the word druggist does not appear.

"Section 2 authorizes such food and dairy commissioner to appoint and fix the compensation of the department analyst, and such inspectors and office assistants as he may deem necessary to carry out the provisions of the act. Sections 3, 4 and 5 define duties of the force and provide for their payment.

"Without any reference to either drugs or medicines, the four succeeding sections of the act are devoted to a legislative definition of the term "food" and a recital of what constitutes its adulteration or misbranding, and immediately following is section 10, which reads as follows: 'It shall be unlawful for any person acting for himself or as the servant or agent of any other person, firm or corporation, to manufacture, sell, offer or expose for sale any article of food which is adulterated or misbranded within the meaning of this act. The possession by any inn keeper, hotel

keeper, restaurant keeper, or boarding house keeper of any food or drug which is adulterated or misbranded within the meaning of this act, shall be deemed to be the keeping of such food or drug for sale.'

"Neither the term 'druggist' nor 'medicine' was employed by the legislature in this provision and the unlawful possession of the adulterated or misbranded 'drug' mentioned only in the final sentence is unaccountably limited to the dispensers of food.

"Section 35, consisting of eight subdivisions, is declarative merely of what conditions are essential to constitute misbranded or adulterated drugs or articles of food, but no language is used therein tending in the slightest degree to evidence a legislative intent to make anything unlawful or justify the infliction of a penalty for the sale of prepared medicine 'bearing no qualitative statement of what it is composed.'

"While this section regulates nothing and is merely descriptive of the articles of food and medicine mentioned therein and is incapable of transgression by any person, the provision immediately following, being section 36, declares that 'Any person violating any of the provisions of the preceding section of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than ten nor more than one hundred dollars or by imprisonment in the county jail not to exceed thirty days, or by both such fine and imprisonment for such offense.'

"Were it to be assumed, as contended by the counsel for the food and dairy commissioner, that the expression, 'preceding section,' might be authoritatively changed to 'preceding sections,' this prosecution would not be maintainable for the reason that there is nothing in section 10, nor in any other provision of the pure food law' authorizing the arrest of a druggist or making anything that is charged in the complaint a penal offense. According to the elementary rule of construction, the statutory enumeration of persons of the same class by specific terms, such as inn, hotel, restaurant or boarding house, must be restricted to that class of individuals, and no consideration of the mischief to be remedied by the passage of the act is sufficient to justify the interpolation required to bring within its operation another class of persons whose business is distinctly different.

"There being no legal authority for the process under which the petitioner is restrained of his liberty nor general law to justify a conviction, his application to this court for a discharge on habeas corpus is granted."

Opinion by Fuller, presiding judge.

POWERS RELATIVE TO REGULATION OF LOCATION OF DAIRIES.

The supreme court of Louisiana says, in the case of city of New Orleans vs. Murat, 44 Southern Reporter, 8698, that by Act. No. 45, p. 46, of 1896, the city of New Orleans was given express authority and power to regulate the location of, and inspection and cleanliness of, dairies likely to be or become detrimental to health or comfort and to adopt such ordinances and regulations as should be necessary for the protection of health, and to prevent the spread of disease, and to maintain good sanitary conditions in the streets, etc. In May, 1907, the common council of the city acted under that authority by adopting its Ordinance No. 13, 335, which declared that from and after its

adoption it should not be lawful for any person to carry on a dairy within certain designated limits, and that all dairies then existing by virtue of any previous ordinance of the city should be removed within 10 years from the promulgation of the ordinance. By the fifth section of the ordinance it was provided that any person convicted of the violation of the ordinance should be sentenced to pay a fine of \$25 and in default thereof be imprisoned for a period of 30 days.

In June, 1907, the defendant was charged with a violation of this ordinance by failing to remove his dairy from within the limits designated by the ordinance. He excepted that the ordinance was illegal and unconstitutional on a number of grounds, but they were overruled, and he was convicted and sentenced. None of the grounds of complaint urged were well grounded.

It is held that the right and power of the city to prohibit the carrying on of dairies inside certain limits therein, when that power is exercised in the interest of public health, is undoubted. It is to be presumed that the common council, charged by law with the determination of that question, has not acted capriciously, oppressively, or arbitrarily, but that it has acted in and for the best interests of the people of New Orleans. The proposition contended for by the accused that, by reason of his having established his dairy within limits assigned at that time for dairy purposes and expended money in the improvement of the property, he had acquired a vested right to remain in that location, no matter what change in conditions may have occurred subsequently, and that the council by once fixing dairy limits had exhausted its powers over the subject-matter, was manifestly untenable. Public interest and progress cannot be tied up in that way. All property is held subject to the paramount right of the public safety and health. The general right of a person to engage in any trade, profession, or business is subject to the power inherent in the state to make all rules and regulations respecting the use and enjoyment of property rights necessary for the public health, morals, comfort, and safety, and such regulations do not deprive owners of property without due process of law. Parties who had dairies in existence at the time of the adoption of the ordinances within the prescribed limits had no legal ground to complain of discrimination, in that they had been accorded 10 years to lessen the consequences of a sudden move, while others were prohibited at once from carrying on dairies within the same limits; the discrimination, if any, being in their own favor. The ordinance itself as a whole, and as such, had effect from the date of its promulgation, the portion relative to the change of location as well as the other parts.

SMILES FROM THE CHICAGO PRESS.

Doctor—There is only one way to save you. I shall have to remove your vermiform appendix.

Patient (resignedly)—All right, doctor; you will find it in a bottle in that cupboard. Dr. Slicem got it out of me a year ago.—Chicago Journal.

Mrs. Newed (sobbing): Oh, J-John! The c-cat has e-eaten all the angel cake I b-baked this m-morning. Boo-ho-o-o!

Newed (consoling): Well, don't cry, dear! I'll buy you another cat to-morrow.—Chicago Daily News.

INTERNAL REVENUE DECISIONS.

(T. D. 1281.)

List of alcoholic medicinal preparations for the sale of which special tax is required.

[Int. Rev. Circular 713.]

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., December 3, 1907.
To Collectors of Internal Revenue and Revenue Agents:

For your guidance is published the subjoined list of alcoholic medicinal preparations, which have been analyzed by this office and classed as compound liquors under the ruling in T. D. 1251, and for sales of which the special tax of liquor dealer is required.

It must be clearly understood, however, that the list here given is not exclusive, and does not purport to give the names of all the preparations for the sale of which special tax is or may be required, but embraces only those which have been analyzed by this office and held to be insufficiently medicated to render them unsuitable for use as a beverage. The names of a number of preparations which have been held in previous rulings and letters to be suitable for such use, the manufacture of which has been discontinued or the formulas so modified as to change their classification, are omitted.

For the sale, subsequent to January 1, 1908, of any of the preparations here given, or of any other preparations which do not come within the requirements of the law as to medication, as interpreted in T. D. 1251, special tax will be required, even though such sale is made in good faith for medicinal purposes.

The names of such additional preparations as are analyzed and classed with those here given will be published from time to time in Treasury Decisions, and whenever the number justifies also as a circular.

The question of the proper classification of the various malt extracts now on the market is still under consideration, and the conclusion, when reached, will be announced in a later circular. Collectors are directed to place a copy of this circular in the hands of every druggist in their districts who has not already paid special tax as retail liquor dealer.

Angostura Aromatic Tincture Bitters.

Aroma Stomach Bitters.

Atwood's La Grippe Specific.

Augauer Bitters.

Augauer Kidney-Aid.

Belvedere Stomach Bitters.

Bonekamp Stomach Bitters.

Boonekamp Bitters.

Brown's Aromatic Cordial Bitters.

Brown's Vin Nerva Tonic.

Botanic Bitters.

Cinchona Bitters.

Clifford's Cherry Cure.

Cooper's Nerve Tonic.

Cuban Gingeric.

Dandelion Bitters.

De Witt's Stomach Bitters.

Dick's Nutritive Elixir.

Dr. Dade's Blackberry Cordial.

Dr. Bouvier's Buchu Gin.

Dr. Fowler's Meat and Malt.

Dr. Gray's Tonic Bitters.

Dr. Hortenbach's Stomach Bitters.

Dr. Worme's Gesundheit Bitters.

Dr. Rattinger's Bitters.
 Duffy's Malt Whiskey.
 Ducro's Alimentary Elixir.
 Gilbert's Rejuvenating Iron and Herb Juice.
 Ginger Tonic.
 Ginseng Cordial.
 Green's Chill Tonic.
 Harrison's Quinine Tonic.
 Jerome's Dandelion Stomach Bitters.
 Jones' Stomach Bitters.
 Juni-Kola.
 K. K. K.
 Katarno.
 Kudros.
 Lemon Ginger.
 Laxa Bark Tonic.
 Magen Bitters.
 Meta Multa.
 Obermueller's Bitters.
 Old Dr. Scroggin's Bitters.
 Panama Bitters.
 Rockandy Cough Cure.
 Royal Pepsin Tonic.
 Scheetz Bitter Cordial.
 Smith's Bitters.
 U-Go.
 Uncle Josh's Dyspepsia Cure.
 Warner's Stomach Bitters.
 Westphalia Stomach Bitters.
 William's Kidney Relief.

JOHN G. CAPERS, Commissioner.

(T. D. 1282.)

Caramel coloring in spirits.

Seizures or detentions of spirits are not to be made where the sole ground of seizure or detention is the presence of caramel coloring.

Treasury Department,

Office of Commissioner of Internal Revenue,
 Washington, D. C.

Sir—Some time ago you reported one ———, in the ——— district of ———, for having sent out spirits to which caramel coloring had been added. Mr. ——— submitted an offer in compromise of \$25. This money has been returned to him for the reason that the regulations of this office provide that it is not now considered an offense to add caramel to spirits, pending the decision of the Supreme Court in the Graf case. Taxpayers, acting under the announced policy of this office, should not be disturbed and caused to make offers in compromise on this account.

Complaints have frequently been received that revenue officers are seizing and detaining spirits, under the authority alleged to be in T. D. 1256, as to which no change has been made, except the authorized reduction of proof by water and the addition of caramel to restore the original color.

In following out the instructions contained in T. D. 1256 officers are not to use the mere presence of caramel as an excuse for detention or seizure until the question of the applicability of section 3455, Revised Statutes, has been determined by the Supreme Court.

Respectfully,

JOHN G. CAPERS, Commissioner.

Mr. ———.

WHITE OAK BECOMING EXHAUSTED.

The tight cooperage industry is now going through an interesting struggle for existence. It is having more and more difficulty in meeting the demands of trade and the supply of timber necessary for its performance is not only being rapidly depleted, but is eagerly sought after by strong rivals.

Industries and trades, like species of plants and animals, thrive when conditions are favorable, struggle for existence when conditions are adverse, and finally die or survive according to their ability to adapt themselves to new conditions. The enormous resources of the United States have offered almost unsurpassed opportunities for industries to thrive, but during the last fifty years important economic changes have gone on, and now some of the industries which have prospered in the past have reached or are rapidly approaching a point where they must struggle for life. This is especially true of certain industries which depend upon the hardwood supply of the country.

DESCRIBE CHARACTER OF PACKAGE.

The term "tight cooperage" is applied very generally to all wooden, hoop-bound packages made to contain liquids as contrasted with "slack cooperage" which is intended for solids. The term is descriptive of the character of the package, which must be constructed with close-fitting, tight joints to prevent the escape of liquid contents. To secure such results the selection of high-grade material and exactness in the manufacture of the component parts of the package are necessary.

The use of tight cooperage dates back to the earliest records, apparently having been always an indispensable accessory to commerce and transportation. In the United States one of the earliest uses of the forest resources was the employment of white oak for staves. Even at that period there was a dearth of cooperage oak in Europe and the discovery of a new source of supply was welcomed.

Tight packages are employed chiefly as containers of alcoholic spirits and liquors; cottonseed, petroleum, and other oils; turpentine; pork, lard, and other packing-house products; cider and vinegar; syrups and molasses; paints and lead, and fish. Of these the oil trade consumes by far the largest number, in spite of the fact that an enormous quantity of oil is stored and transported in tanks. The number of new barrels required annually for oil is about 7,000,000. Alcoholic liquids rank next with approximately 5,000,000. Of the remainder, the pork package is the most important.

Tight packages have two distinct uses, transportation and storage. The former is the most important from the standpoint of widest utility, while the latter indispensable for some commodities. For the transportation of liquids and delivery in the original package, in but few cases does any form of container excel a barrel or keg of wood. The exception is when undue loss occurs, as with gasoline and allied products, from evaporation and absorption.

EVENLY AND QUICKLY HAULED.

The barrel has special advantages over the other forms of container for transportation in that it is light, yet strong; is easily and quickly handled, and, unlike metal, it does not offer a surface that will be attacked by acids shipped in it. The low cost of the package allows it to be discarded at its destination, thereby saving return transportation on the empty package. Packages used for storage must also be immune to the attack of acids and be free from odor and other prop-

erties that may affect the substance contained. Briefly speaking, the physical properties necessary for tight cooperage are as follows:

Strength, toughness, flexibility, small absorptive power, closeness of grain, non-warping and non-checking tendencies; absolute freedom from such defects as will cause leakage; reasonable resistance to decay; absence of active agents which may impart undesirable color, taste, or odor to the contents. The last requirement, of course, applies chiefly to packages for use as a container of provisions, such as syrups, lard, pork, etc.

White oak combines all of these properties in an admirable way and furnishes nearly 90 per cent of all tight cooperage stock; the remainder is made up of red oak, chestnut oak, red gum, cypress, spruce, white ash, elm, basswood, birch, and Douglas fir. No material except white oak has proved satisfactory for the aging of alcoholic beverages dependent upon the action of the wood to improve their quality, but for all other cooperage, including beer and ale, substitution of other woods or materials is possible, though not necessarily economical at present.

Those who have investigated the reason why white oak containers assist the aging of alcohol beverages say that the tannic acid in the oak is absorbed by the liquor and enters into its composition. The effect of this and possibly other acids, of which little is known, is to impart to the liquor a mild, delicate flavor in place of the rank, unpleasant one characteristic of unaged liquors, and, in addition, to transform the color from a water white to a deep brown amber.

INNER SURFACE IS CHARGED.

Attempts to age liquors in packages of other woods have been made and always with one result, total failure. Packages for this purpose require the highest grade of tight cooperage and have no lining or coating, but the inner surface is charred, which, it is claimed, draws the tannic acid to the inner surface of the package, where it comes in immediate contact with the contents.

Such commodities as oils, packing-house products, cider, vinegar, paints, beer and ale, turpentine, syrups, and many others are in no way dependent for their improvement upon any chemical action or agent in the wood. On the contrary, it is the inactivity of whatever agent may be in the wood that is sought. It is for this class of commodities that the other woods and materials mentioned may be used.

A brief enumeration of some of the difficulties encountered in the manufacture and use of several of the woods mentioned above will furnish a basis for future investigations. Red oak is a little more difficult to manufacture into staves than white oak, and is also heavier and therefore more expensive to handle. It runs very unsound and so gives a larger percentage of poor material. Being very open grained, it is also liable to leak unless sawed straight.

Finally, the market value of red oak for lumber is so nearly equal to that of white oak that there is little if any economy in the substitution. Chestnut oak offers about the same difficulties except in the matter of leakage, its grain being similar to that of white oak.

Red gum, although used in considerable quantities, is far from an ideal wood for tight barrel staves and headings. The abundance of this species and the relatively low stumpage value, compared with oak, explains the use it has found as a tight cooperage wood.

It has the advantage of being light and of cutting easily. On the other hand, the percentage of poor material runs very high, and unusual care in seasoning the stock is necessary. The sap is said to impart an unpleasant flavor to some commodities, syrups for example, and the wood being soft is easily bruised and often broken in transportation.

CYPRESS IS SATISFACTORY.

Cypress is a satisfactory wood for tanks and syrup casks, but while no experiments are on record to determine whether it would make a satisfactory package for oil and other liquids, the wood is so light and soft that there is little reason to believe that it would. Its value for lumber, if for no other reason, precludes its substitution for oak.

The other woods mentioned are used in very small quantities and for special purposes for which they have been found to be well adapted. For example, ash is the most satisfactory wood found up to the present time for butter tubs, chiefly because it imparts no odor to the butter. Spruce for a similar reason serves well for fish packages.

To overcome these difficulties various lines of experiments are being carried on. The problem of a satisfactory lining to be used in connection with the porous woods has been much studied, and now several more or less efficient compounds are extensively employed, each designed to meet the requirements of liquids of various compositions. One widely used is silicate of soda, often called water glass. This compound is applied hot and in liquid state to the inside of the package. When it cools it hardens and forms an impervious glazed surface. It is used for oil and packing-house products chiefly.

Glue is extensively employed for alcoholic packages which must withstand high pressures, and is very effective. It can not be used for any commodity containing water, since the water absorbs the glue. Beer and ale packages are lined with a composition having pitch for its base. Various patented compounds are also on the market for this purpose.

OTHER SUBSTANCES TRIED.

The substitution of other substances for woods, metals for example, is being tried. Considerable work of this kind has been done and in certain lines it has been attended with success. Tank cars for shipping are largely used, yet many thousands of wooden packages are still required annually. For storage and shipment of alcoholic liquors or any commodity containing an acid or other agent which attacks metal, the use of such a package is impracticable.

On the other hand, for shipping gasoline and allied products, as well as alcohol, the steel drum or steel barrel serves notably well, since evaporation and absorption are effectually prevented. However, the initial cost of such packages is large; their weight materially increases transportation charges and they must be returned, thus increasing these charges. Porcelain-lined tanks are being experimented with as substitutes for the immense wooden ones used in breweries, but the initial cost is large and a small defect in the porcelain lining may cause the ruin of the entire contents of the package.

For beer and ale, which require no aging in wood, glass bottles have been employed as a substitute for white oak kegs and barrels, and their steadily increasing use is proving their worth.

Briefly then, these are the conditions in the tight cooperage industry: White oak, the favorite material,

is rapidly being exhausted and the future of the industry depends upon its ability to utilize new woods or find satisfactory substitutes for wood. This condition is typical of practically all of the hardwood-using industries, all are trying to find new regions from which to replenish their supply of standard materials.

Substitutes are also being eagerly sought. Some of the industries are successively accommodating themselves to the new conditions, but unless steps are taken to produce as much material as is consumed some of the hardwood-using industries will not survive and trades which have flourished for years will become extinct.

THE CHEMIST AND THE COWS.

Any old cow will give milk. So will a sow, a mare or a nannie goat.

The mere fact of mammalian ancestry is not sufficient excuse for keeping a cow for the production of milk for market. Neither is breed an unfailing and unerring insignia of milk producing propensities. It helps some, however. We may hope for much fat from the Jersey, much water from the Holstein, and not much of anything from the Hereford. But some Jerseys belie their ancestry and give thin milk and little of it. Again, some Holsteins fail to fill an eight-gallon can with milk every day. It is individuality that counts in cows as well as in man and microbes.

Prof. Haecker professed to tell much about the milk giving propensities of a cow by the conformation of the animal. Undoubtedly certain external signs such as a large udder and small head, not to say anything about the shape of the escutcheon are indications that the cow was designed by nature to be fitted for milk production rather than beef.

However, all signs, prognostications, breed and pedigree, bow before the Babcock test.

The supreme and only conclusive test of a milch cow's worth is her performance at the pail. How many pounds of milk will she give and how much is each pound worth on a butter fat basis? Does the total value of the milk yield a profit or a loss on the feed consumed and the expense of getting and marketing the milk?

It is an ascertained fact that many cows do not even pay for their keep, let alone yield a profit to the owner.

It is to weed out such cows, to build up the herd to an evenly profitable basis that the farmer turns to the chemist for aid.

Thanks to Dr. Babcock and his predecessors in the work, the test for fat in milk has been made so simple that little skill and less knowledge is required to obtain as useful if not quite as accurate results as the expert chemist. However, not every dairy farmer is trained in this work and if he were would hardly think the expenditure for apparatus justified. To meet this difficulty several farmers club together and hire a man to make milk tests. These milk testing associations were first organized in Denmark, but now the plan has been put into operation in many countries, including the United States.

One difficulty in the spread of this good work in this country is that the ordinary Babcock apparatus is rather cumbersome and difficult to carry around. In this respect the Gerber test commonly used in foreign countries is somewhat of an improvement, although not nearly so simple and convenient to oper-

ate. Recognizing this difficulty Dr. Eaton, when chemist of the Illinois Food Commission, invented a modification of the test of such size and weight that it could be easily carried from place to place. Less than one-third the usual amount of milk is used, and a correspondingly smaller amount of acid, thereby lessening the acid to be transported. However, instead of lessening the accuracy of the test it has probably been increased, as the readings are made to .1 per cent instead of to .2, as in the ordinary Babcock test. The bottle, to be sure, is somewhat expensive to make and will break if abused, but with a little practice a careful person ought to make one last a long time.

It would greatly aid the formations of testing associations in this country if this test was used. The Babcock principle is the best and simplest of any test in use in any country and a test based on this principle, but incorporating the advantage of small size held by the Gerber and similar tests would seem to be the best solution of the difficulty.—*The Milk News*.

CONTROL OF CITIES OVER THE SALE OF MILK.

That the city governments can in the exercise of the police power for the promotion of the public health regulate the sale of milk in cities is a well established principle. In nearly every city there are milk inspectors who sample the milk offered by the various dealers, for the purpose of determining whether it contains the legal per cent of butter fat, and whether it is free from germs that may spread disease among the inhabitants. It is now proposed by a number of cities to extend this inspection a step further, namely, to require dealers in milk to take out licenses, one requirement before licensing being that the cows shall be subjected to the tuberculin test, and dealers forbidden to sell milk from cows which react and show by this reaction that they are affected with tuberculosis.

This method has been adopted by at least two cities in Iowa and is under consideration in Des Moines. The main features are, first, the taking out of the license; and second, that no man is permitted to have a license unless he guarantees the milk to be from cows tested within the year. Inasmuch as many of these milk dealers buy milk from farmers in the neighborhood or at a distance on some line of railroad, this will necessitate the testing of the cows on these farms. The farmer, on the other hand, when purchasing cows would be required to find out whether they had been tested, or else purchase them subject to test.

We heartily endorse this proposition. While milk from a tuberculosis cow is not necessarily dangerous to a healthy man, it is dangerous to infants, particularly during the summer season, and to any person when his system is not in the best of condition.

Where this method is adopted, it necessarily involves more or less expense, usually a dollar a head, whether the cows react or not. This may seem to be putting a burden upon the milk producer; but it is a burden that he should be glad to assume. It will insure that his hogs will be free from tuberculosis, and further, remove the danger to his own family. These two considerations are worth many times the cost.

An ordinance of this kind will be far-reaching, affecting not merely the city but the country. When the dairyman wishes to purchase cows, the farmer

who sells them to him will be obliged to subject them to the tuberculin test; and while he is at it he may just as well test his entire herd and clean up, if any cleaning up is needed. It will reach still further: If a dairyman wishes to buy a bull from a breeder he will buy subject to test; and if an animal should react after it is sold it is notice to that breeder that he needs to clean up.

The control of the city over the milk supply should go still further, although it probably would not be practicable just now. It should require the disinfection of all stables where reacting cattle have been kept, should require a proper system of ventilation, the thorough lighting of the stable; and this entirely apart from the consideration as to whether there is tuberculosis in the herd or not.

In this matter of the inspection and regulation of the food supply the city should go still further, and require all animals to be slaughtered at one abattoir and subject to inspection. It is only in this way that the public can be guaranteed pure and wholesome food, and the public health maintained and promoted.

The time will come, and that in the near future, when all cities and towns of importance will be obliged to take such measures as we have outlined.—*Wallace's Farmer*.

TO PROHIBIT OUT-DOOR DISPLAYS.

The chief of police of St. Louis has just issued stringent orders to all the police officers that they must report all cases where grocers and butchers display fruits and produce and other edibles on the sidewalks in front of their places of business. There is a city ordinance which prohibits this kind of display in the interest of cleanliness and health and decency and it is the purpose of the chief to see that the law is enforced. It is felt that to thus expose food supplies leaves them open to infection, to street dirt, to expectoration and to the attention of animals.

This is a question which necessarily compels a certain degree of diplomacy in the discussion, but the merits of the question are too well known to require any advocacy. The time has come when the grocery trade of every city ought to follow the example of St. Louis—aim for an improvement, first through educating the grocer, but if that cannot be sufficiently effective, to invoke the aid of the city ordinances and the police.—*American Grocer*.

"He'll never take a drink before noon," remarked a railroad agent in the Flood building yesterday.

"Oh, come off; he'd never refuse an invitation like that."

"All right; try him."

"Very well; come into his office with me."

"Hello, Jack. Come over and have a little drink?"

"Nope; never drink before noon."

"Oh, come on, just one little drink as an appetizer for your luncheon; come along with us anyway; come."

"Well, what's yours, Jack?"

"Bartender, give me a ticket. I'll be back at 4 o'clock and get my drink."—*San Francisco Chronicle*.

"I want to tell you, sir, that this panic don't affect the farmers."

"Don't eh? Well, you jest oughter see the prodigal sons that's been thrown back on us."—*Judge*.

Household Science

POISON FOODS.

Dr. Woods Hutchinson is perhaps the most noted dietitian of the age. In a recent number of McClure's Magazine he writes of the food supply of the world and those foods which may be advantageously used for food. In this he takes a conservative position and clearly shows what may be one man's food may be another man's poison. In writing of the world's food supply and the comparatively small amount available for human food, he says:

"The utmost that can be said in the way of generalization is that certain great food-staples have proved themselves within the age-long experience of humanity to possess a larger amount of nutritive value, digestibility, and other beneficial qualities, and a smaller proportion of undesirable properties, than any others. These, through an exceedingly slow and gradual process of the survival of the fittest, have come to form the staples of food in common use by the human race all over the world. It is really astonishing how comparatively few of them there are, when we come to consider them broadly: The flesh and the milk of three or four domesticated animals; the flesh of three or four, and the eggs of one species of domesticated birds; three great grains—wheat, rice and maize—and a half-dozen smaller and much less frequent ones; one hundred or so species of fishes and shellfish; two sugars; a dozen or so starch-containing roots and tubers, only two of which—the potato and the manioc—are of real international importance; twenty or thirty fruits; forty or fifty vegetables—these make up two-thirds of the food-supply of the inhabitants of the world.

"Instead of wondering at the variety and profuseness of the human food-supply, the biologist is rather inclined to ejaculate with the London footman immortalized by John Leech, who, when told by the cook that there would be mutton chops for dinner and roast beef for supper, exclaimed: 'Nothink but beef, mutton and pork—pork, mutton and beef. Hin my opinion, hit's 'igh time some new hanimal was inwented!'

"On looking into the matter further, one finds these various standard comestibles arranged in a sort of rough order of comparative importance which is singularly uniform all over the world. First come the staples, which group includes the mammalian meats, maize, wheat, or rice, butter or oil, sugar, and salt. It is safe to say that two-thirds of the money expended for food by every civilized race and most barbaric ones goes to purchase some combination of these great staples. Science has, of course, long ago vindicated the good sense of humanity's selection by showing that they contain the highest degree of fuel-value, digestibility, and freedom from injurious results that is to be had for the price—in most cases, indeed, at any price.

"Next comes a large group of accessory foods whose function it is to fill the gaps between the great staples, or to supply defects which may be present in the latter, or to break the monotony of a diet consisting too exclusively of these. Such are the green vegetables, the fruits and salads of every sort, the rarer and less nourishing kinds of meat, such as fowl, game,

shell-fish, etc.; cheese, milk, butter, and certain spices and condiments.

"Lastly, another rough group of largely ornamental foods, luxuries, relishes, stimulants to the appetite, or sources of pure enjoyment to the sense of taste or smell, such as flavorings and aromatics, tea, coffee, tobacco, alcohol, sweetmeats, sweet herbs, cordials, and rare delicacies generally."

In his classification of poison Dr. Hutchinson divides them into three main groups as follows:

"Those which contain sufficient poisonous or irritating matter to make them generally unfit for human use; second, those that possess high nutritive value, but contain a small amount of poison or irritating matter, so that they can be taken only in moderate amounts; and, third, certain foods of low fuel-value, which act as acute poison to perhaps five to ten per cent of the race, though perfectly harmless, in ordinary amounts, to the remainder."

Dr. Hutchinson pays his respects to the vegetarian, the fruitarian, the monodietist and other food faddists, as follows:

"The bearing of these considerations upon reform or exclusive dietaries is of interest. The economist and the vegetarian who, for utilitarian or humane or moral reasons, urge the substitution for meat of beans, peas, cheese, cornmeal, oatmeal, nuts, fruits, etc., are promptly baffled by the fact that these cheap and highly nutritious substances all contain elements which are poisonous or irritating to the average stomach when taken in excess of about one-third of the actual needs of the body, and, in the case of the fruits and vegetables, are markedly deficient in fuel-value in the amounts which can be sufficiently ingested or digested.

"The school of dietetic reformers who hold that food should be eaten raw also find themselves confronted by obstacles of this same character, in that they usually, either from obvious reasons or upon moral grounds, avoid the use of meat, and are thrown back upon the same great sources of vegetable proteid as the vegetarians—beans, nuts, cheese, etc.; moreover, they expose themselves to an ambush of other dangers, through the possibility of bacteriological contamination of their food. Indeed, the great bacteriologist Metchnikoff goes so far as to raise the banner of bacteriology against the use of any uncooked fruits, vegetables, or grains which cannot show a spotless and unsullied pedigree from stem to mouth."

"To sum up, poison foods, while intensely individual in their action and at first sight little better than curiosities of dietetics, have exercised a profound influence on the menus of civilized races. Moreover, the sanction which the latest discoveries of the laboratory have given to their age-long exclusion from the list of staple foods is a fact to be reckoned with by that huge and well-disciplined army of food reformers who, actuated by the highest motives, are desirous of reconstructing the dietary of mankind."

WEEDS IN USE FOR THE TABLE—FOOD ONCE DECLARED AS UNFIT TO EAT.

Since the pure food law has gone into operation, says the New Haven Union, one has new and strange thoughts forced upon him by recalling the number of weeds, fungi and vegetable parasites regarded as wholesome to-day, but thought to be dangerous, as well as repellent to our ancestors.

Our grandparents regarded tomatoes as the fruit

of the weeds, utterly unfit to eat, says the Brooklyn Eagle. The bushes grew wild in the middle West, where I passed my boyhood, and were to be encountered in the corners of "warm" fences. The tomato was a yellow or red-skinned pod of weeds about the size of a plum. In shape it was perfectly round. The fruit of this neglected weed has been developed by cultivation into the large and succulent vegetable of to-day. It has become one of the most valued accessories to culinary art—invaluable in the preparation of sauces and dressings for meats of many kinds. And yet, physicians insist that it contains the cancer germ.

When farmers cut their full grown cabbages from the stalks which lifted them nearly a foot above the ground, preparations to burying the cabbages in the ground or stowing them in the cellars of their "smoke-houses," they noticed that young bulbs sprouted around the tops of the decapitated stalks. Nobody thought of eating them in our American grandparents' days. Hogs and sheep were observed to be very fond of them. Goats also ate them with avidity; but then, goats thrive upon newspapers and were currently believed to feed on tin cans. Those little bulbs are the brussels sprouts of our present dietary system! Opinion is greatly divided as to the origin of the cabbage, and for that reason the vegetable hasn't taken a high rank among the family of edible plants. Germans salt it in a barrel, pickle it, and name it "sauerkraut." That it is a development of evolution from the "skunk cabbage" of the ponds is doubtful because its leaves are quite dissimilar in form. But it is a food of very low origin. The same may be said of turnips, beets and potatoes—among the latter must be included the yam or sweet potato.

When the French colonized the country that is now Louisiana, they found a weed growing amid the bayous and overflowed lands along the Mississippi to which the aborigines gave the name of "okra"—a word meaning a muddy place and probably referring to the localities in which the herb grew. It bore a musilaginous pod, which when cut, exuded a milk-white juice. When the Creoles got their cooking outfits in working order, they tried the weed as a thickener for their porridges and found it very eatable. The man or woman who ate the first dish of okra soup must have been worthy of a Carnegie medal.

However, the weed became one of the staples of New Orleans epicurianism. The Creoles called it "gumbo," a reference to its glutinous character. From that day its place in culinary art never has been in danger. "Gumbo" is hardly known in Paris; a French cook will have naught of it; but it is king of all American soups, being to this country what mutton broth, with barley, is to Scotland; what bouillabaisse is to France and puchara to Spain.

But the milk weed of the Louisiana swamps remains one of the food discoveries of the world. The Roman gourmands whose palates were so highly trained that they could tell the difference in taste between lamphreys fed upon human flesh and that fattened upon goats, would have appreciated okra, or more properly, "gumbo" stew. With chicken, it is a delight to the palate.

Send in one dollar and we will send you the American Food Journal for one year and a photograph of the 11th annual convention of The Association of State and National Food and Dairy Departments neatly framed.

STERILE DISHWASHING.

The recent experiments of Messrs. Christiani & Micheles as reviewed in "Cosmos" and translated for the Literary Digest, renews interest as to whether ordinary dishwashing really sterilizes dishes. To those who must of necessity dine in restaurants the question is not of such immediate importance as to whether the ordinary dishwashing actually cleans dishes, ocular evidence to the contrary notwithstanding.

However, the conclusions of the noted scientists are interesting and even reassuring, but would probably have shown customary washing in this country even more effective had they considered the antiseptic action of soap.

That dishes need a thorough cleansing to avoid the danger of infection by a previous user seems clearly indicated by the recent experiments of Messrs. Christiani and Michelis, described by the authors in the *Revue Medicale de la Suisse Romande*. The writer of an article in *Cosmos* (Paris, July 20) notes that hygienists have often dwelt on the insufficiency of ordinary dishwashing, especially in hotels. It may be added that, in this country, attention has recently been called to the ordinary drug-store soda fountain as a place where glasses are used indiscriminately with very little cleansing. The writer of the note in *Cosmos* thus summarizes the results of the experiments alluded to above:

"1. A series of three glasses was simply wiped with sterilized cloth, without previous washing.

"2. Another series . . . was rinsed in a basin of cold water and then wiped, as is generally done in kitchens; that is, with little care.

"3. A third series was washed and rinsed in fresh water, then wiped with great care, as is done in laboratories.

"More or less abundant cultures of germs were obtained in the cases of simple wiping and of insufficient washing, while rare cultures or even negative results were had with abundant washing and careful wiping.

"It is thus seen that the act of dishwashing is extremely beneficial, and that, while careless washing only partly removes the germs, an abundant washing, even in cold or lukewarm water, followed by careful wiping, may either entirely remove the bacteria or, at least, so reduce their number that they cease to be practically a menace to health.

"It is thus an exaggeration to assert that a washed dish is almost as dangerous, bacteriologically, as an unwashed one. A carelessly washed and badly wiped dish certainly exposes those who use it to dangers which are as real, though perhaps not as great, as those of a dirty dish; but, on the contrary, a dish carefully washed and rinsed and particularly well wiped, while it may not always be bacteriologically sterile, presents no practical danger of infection, because the number of germs that may still remain alive upon it is considerably reduced.

"In fact, the experiments of Christiani and Michelis show that if sufficient trouble is taken in cleansing a dish it may be rendered innocuous; but the question is, how this may be done most conveniently. It is a good thing to remember that the nearer water is to the boiling point the better it will sterilize; also, the addition of 2 per cent of carbonate of soda makes the sterilization infinitely easier, even at 50 degrees (122 degrees F.)."

EGG PRESERVATION.

While there is no doubt that the very best way of preserving eggs is the intelligent use of cold storage, as the eggs, if fresh when put in, deteriorate but little. The trouble with that system is that the eggs do not reach the cold storage as quickly as they ought to. I have before advocated the introduction of the co-operative Danish egg collecting system and feel sure that it would be worth millions of dollars to our farmers.

But the trouble is that cold storage is not as yet obtainable, especially for use on the farm, where it is desired to keep a winter's supply, and hence there is room for the use of some of the many more or less effective methods, patented and unpatented.

In all of these methods the main principle is to kill possible germs on the shell or to make the shell airtight or both. I presume the storing of the eggs in large tanks covered with lime water is the system used most extensively where a large quantity of eggs are to be preserved, and on a small scale the greasing of the surface as soon as the eggs are laid the simplest and cheapest on the farm, but hundreds of other methods have been advocated, and of all these the preserving of the eggs with a solution of water glass is as far as I know one of the most effective and also practical when the eggs are not to go on the market, in which case their appearance is objected to. This method I tried some forty years ago but do not remember the details of the experiment further than it was satisfactory, but the cost of the "water glass" was against it at that time. To prevent cracking when boiled the shell should be first pierced with a pin.

I now note one of the latest patents by Landsberg in Denmark, where the eggs are covered with thin film of a casein solution, which later may be removed by a bath of weak ammonia or soda solution. The casein solution is made with ammonia with the addition of a "disinfectant." My reason for noticing this patent is, of course, the possible extension of the market for casein, which eventually will increase the market value of skim milk.

Finally let me remind those who desire to preserve eggs on a small scale, that whatever means they employ to exclude the air, the result is good just in proportion to the time when it is done, the best being the same day the eggs are laid and still better within an hour of "biddy's" boasting cackle. In addition to the excluding of the air, the eggs should be kept in a dry place and as cool as possible and they should be turned once a week.—J. H. Monrad, in *New York Produce Review*.

ECONOMY IN ENFORCEMENT OF FOOD LAW.

The need of strict enforcement of the pure food laws, both state and national, is evident to every one who gives the subject close attention. It becomes all the more clear when it is considered that governmental agents are not infallible, and that what may be overlooked under federal inspection may later be discerned by inspectors acting for the state. In this there is more or less a double protection, which is valuable.

Attention was called to the latter phase of the subject a short time ago by the discovery of 600 pounds of diseased hams by inspectors of the St. Louis health department, and the further revelation that the same hams had been pronounced pure by federal inspectors. Had it not been for local inspection, the meat in the case in question would have been consumed in all probability and possibly to the serious injury of the persons eating it.

Of course it is impracticable to duplicate all inspection and verify the work of every agent of the federal government, but

it is well enough to bear in mind that the latter may make mistakes.

The need of inspection by agents of the state government is chiefly important in respect to food products which do not become articles of interstate commerce. To this class a large percentage of the food consumed in any state belongs, and where there is no state inspection consumers are exposed to all the imposition of which local producers may be guilty.—The Modern Grocer.

STARVING.

A PLEA TO DR. WILEY.

What are these awful food laws
That are being passed, about
Adulteration and misbranding?
Is the universal shout.

Don't eat tomato catsup
If you do not want to die,
For the benzoate of soda
Puts your insides all awry.

A maraschino cherry
May be classed with "Rough on rats,"
For the coal tar dye that's in it
Will permeate your slats.

If for dried fruit you are longing
Do not dare to take a bit!
For the sulphurous dioxid
Will produce an awful fit.

If it's fish you would be eating,
Eschew the Worcestershire,
For the salicylic acid
Will keep you sick a year.

Sweet oil, extract of lemon,
Cream of tartar and the like
If used for food in these days
Do naught but shorten life.

And with all the deadly mixtures
Dr. Wiley talks about,
Wines, beers, porter, whiskey,
Ale and English stout,

Milk, cream, butter, coffee,
Maple syrup and the rest,
There's little left but shavings,
Which we fear will not digest.

Oh! doctor, we are starving!
Can't you tell us what to eat?
Surely you don't live on nothing,
For they say you're fat and sleek.

If you'd only pass a health law
That would tell us how to thrive,
Say a Roosevelt-Wiley health law,
To include "race suicide."

Get it through this present Congress
And I'm sure we'll all affirm,
By our vote on next November,
That we favor a third term.

—American Grocer.

A. PLAINT.

A suit has been started in Kansas City under the federal law against a manufacturer of lemon extract which commodity it is alleged contains scarcely any lemon oil.

The Illinois Food Department has issued bulletin No. 6 signed by Commissioner Jones and Assistant Commissioner Schuetnecht dealing with oleomargarine only. In as much as bulletin No. 7, issued by Commissioner Jones on the same date, covers the same ground and in addition includes process butter and which bulletin was published in full in our December issue it will be a useless repetition to reprint bulletin No. 6.

* * *

Commissioner H. R. Wright of Iowa is bringing suit to test the application of the Iowa law in relation to compound lards which do not contain hog fat.

* * *

The new Connecticut food law, among many others, went into effect Jan. 1st. It will be enforced by the old officials.

* * *

The Michigan sausage case has been carried to a higher court.

* * *

Food Commissioner Johnson of Nebraska is after the temperance drinks and has ordered all brands containing 2 per cent or more of alcohol out of the state.

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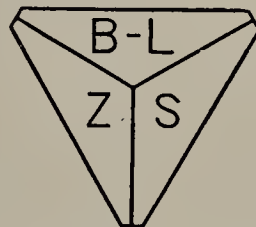
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A booklet entitled "A Triple Alliance in Optics" is now in press. It gives a detailed account of the association of interests of the three above mentioned firms and is designed for general distribution. If you do not receive a copy we shall be pleased to mail one on request.

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THE CORN SYRUP CONTROVERSY SETTLED

The Corn Products Refining Co.'s Contention, Backed Up by the Views of the Ablest and Most Experienced State Food Commissioners and Chemists in the United States, Upheld by Dr. F. L. Dunlap, Geo. P. McCabe of the Board of Food and Drug Inspection, Secretaries Wilson, Cortelyou, Straus and Concurred in by President Roosevelt. Dr. H. W. Wiley Dissenting.

Just before going to press the following opinion has been rendered by Secretaries Wilson, Cortelyou and Straus and concurred in by the President:

"We have each given careful consideration to the labeling under the Pure Food Law, of the thick viscous syrup obtained by the incomplete hydrolysis of the starch of corn and composed essentially of dextrose, maltose and dextrin. In our opinion it is lawful to label this syrup as "Corn Syrup" and if to corn syrup there is added a small percentage of refiners' syrup, a product of the cane, the mixture, in our judgment, is not misbranded if labeled "Corn Syrup with cane flavor."

We herewith give an extract from Dr. T. B. Wagner's brief submitted to the Board of Food and Drug Inspection on July 8, 1907:

The following brief is respectfully submitted for the purpose of clearing away the doubts which, we understand, are being entertained by your Honorable Board in regard to the propriety of employing the name "Corn Syrup" as a synonym for "Glucose." In com-

piling the data, which form the basis of this brief, we have taken cognizance of the chemical nomenclature, trade designations and customs, court rulings and official expressions on the subject on the part of the Agricultural Department at Washington, D. C.

It has been asserted frequently that the name "Corn Syrup" is but of recent origin. That this statement is entirely erroneous is shown by a reference to the following publication:

Report on Glucose

Prepared by The National Academy of Sciences
In Response to a Request

Made By

The Commissioner of Internal Revenue,

Washington, Government Printing Office, 1884.

On page 73 of this bulletin, which is attached hereto and marked "Exhibit A," we find the following statement:

Starch sugar appears in commerce in a great variety of grades under the following names:

a—The liquid varieties— b—The solid varieties—

Glucose

Mixing Glucose

Mixing Syrup

CORN SYRUP

Jelly Glucose

Confectioners' Crystal Glucose

Solid Grape Sugar

Chipped Grape Sugar

Granulated Grape

Sugar

Powdered Grape

Sugar

Confectioners' Sugar

Brewers' Grape

Sugar

This report was submitted to the Commissioner of Internal Revenue, under date of January 7, 1884.

The investigation, underlying the Committee's report, was carried on during the year 1883, or in the very early stages of the glucose industry. It is true that that at that time the name "Corn Syrup" was not in general use. This, however, is explained by the fact that in those early days glucose was little known to the consumer, it being principally used by manufacturers of table syrups in the preparation of their products. However, when the manufacturers of glucose entered the table syrup business and thereby brought their products into the home of the consumer, in naming the product they chose from the names available "Corn Syrup" rather than "Glucose" for various reasons, principally, because the name "Corn Syrup" imparts to the public more information as to its origin than "Glucose;" in fact, to the layman "Glucose" has no meaning whatsoever. The corn syrups, which are glucose flavored with refiners' syrup or molasses, are mostly consumed by the laboring and farming classes, because these products are easily within their reach and are not proscribed from their diet or their homes by an unreasonable price. The farmer or laboring man cannot be expected to interpret the meaning of such a foreign word as "Glucose." However, if the same product is offered to him under the name of "Corn Syrup," he knows immediately what basic material the syrup is obtained from. The manufacturer guarantees the product to be pure and wholesome. This, together with its low price, are the essentials prompting the consumer to purchase it.

It has been pointed out by the Supreme Court of the State of Michigan that in the minds of many people the word "Glucose" is connected with glue and, therefore, with a glue factory. The case in question is that of the—*People versus Harris*—(Opinion filed December 1, 1903), to-wit:

"Held that a sale of syrup made of 90% pure corn syrup and 10% cane syrup, labeled 'Victor Corn Syrup' and truthfully stating the ingredients composing it, is not in violation of the statute in that it is not branded 'Glucose, 90%, and cane syrup, 10%.'"

The case proceeded to trial on the following agreed facts—

1st—

2nd—

3rd—"The Victor Corn Syrup" in question is in fact composed of 90% of syrup, made from corn, commercially called "Glucose" or "CORN SYRUP," etc.

4th—

5th—

6th—

7th—

8th—

9th—"The consuming public does not understand that glucose is syrup made entirely from corn. On the contrary, it is claimed by the respondent that the public generally supposes glucose to be an inferior product made from animal fat, or a product of the glue factory, while they do recognize CORN SYRUP as being made from corn."

The point has been made that by a campaign of education, within reasonably short time, the public could be brought to understand the exact meaning of the word "Glucose." Our experience, however, differs. This company has spent hundreds of thousands of dollars in preaching the gospel of corn syrup. We know the difficulties in getting results. In advertis-

ing corn syrup, we aim to teach the public the truth; we state that it is a syrup made from corn—hence the name "Corn Syrup." Were we to engage in educating the consumer to the meaning of "Glucose," a word not to be found in the vocabulary of the plain, every-day American citizen, and were we to ignore entirely the name "Corn Syrup," we feel certain that this task would be almost a hopeless one.

The only objection to the name "Corn Syrup," which was given to us by the Chief of the Department of Chemistry, was that while obtained from corn, it does not occur therein as such; that, therefore, the name "Corn Syrup" is a misnomer. This statement does not appear to be in accord with the nomenclature given our sugars in Circular No. 19, Office of the Secretary, United States Department of Agriculture, June 26, 1906, where they are designated as "Starch Sugar." The fact is that neither corn syrup nor starch sugar occur as such in corn. Neither do they occur as such in starch. They are both derived from corn. It must be clear, therefore, that the objection which is raised against the name "Corn Syrup" must apply against the name "Starch Sugar," yet the latter has been officially designated and promulgated as a proper name for our sugars. (See Circular No. 19.) We are further of the opinion that this name does not impart much more information than the name "Glucose," for the very reason that starch syrup or starch sugar can be made from a great number of starch-containing cereals. The following reference is quite to the point. It is taken from Thorpe's Dictionary of Applied Chemistry, 1905, Volume I, page 653:

"In America green MAIZE STARCH is the chief material, hence the term CORN SUGAR."

Let us now consider how the recognized authorities on food, food inspection, food adulteration and food analysis, look at this matter.

Albert E. Leach, Chemist of the State Board of Health of Massachusetts, in his book, "Food Inspection and Analysis," edition of 1904, says on page 470:

"Commercial Glucose, otherwise known as 'Mixing Syrup,' 'Crystal Syrup' and 'Starch' or 'CORN SYRUP.'"

Alfred H. Allen, the English Food Chemist, in "Commercial Organic Analysis," revised by Henry Leffmann, edition of 1898, page 359:

In America the term "Glucose" is restricted to the syrup preparations, the solid products being distinguished as "Grape Sugar." The following grades are recognized: Glucose, Mixing Glucose, Mixing Syrup, CORN SYRUP.

E. H. Richards, Instructor in Sanitary Chemistry in the Massachusetts Institute of Technology, in "Food Materials and Their Adulterations," 3rd edition, page 97:

The ordinary table syrup is chiefly glucose or CORN SYRUP.

Professor Henry Leffmann, well-known as an author of Essays on Food, in "Select Methods in Food Analysis," by Leffmann & Beam, 2nd edition, 1905, page 125:

Glucose is often termed "CORN SYRUP."

Watts Dictionary of Chemistry, a recognized source of information, edition of 1890, Volume IV, page 539:

Dextrose = Grape Sugar = CORN SUGAR.

Referring to German expressions on this subject, we quote: Beilstein, the authority on nomenclature in organic chemistry, in "Hand-Buch der Organischen Chemie," 3rd edition, Volume 1, page 1042:

Glucose = "KARTOFFEL ZUCKER" (POTATO SUGAR).

Wagner in "Hand-Buch der Chemischen Technologie," 1889, page 821:

"KARTOFFEL ZUCKER" (POTATO SUGAR).

Dr. Wilhelm Bersch in "Die Fabrikation von Staerke-zucker," etc., 1901, page 200:

"Auch bei der Erzeugung des KARTOFFEL-SIRUPS (POTATO SYRUP) und ueberhaupt der Staerkesirupe," etc.

We desire to call particular attention to this last named quotation, inasmuch as a distinction is made between "starch syrup" and "potato syrup," the former being used in a generic sense, indicating a class of syrups, whereas the last named is a specific designation, referring to one particular product only—potato syrup.

The Imperial German Board of Food Chemists, appointed to establish official methods for analysis of food products, refers to the subject in "Vereinbarungen zur einheitlichen Untersuchung und Beurtheilung von Nahrungsmitteln, und Genussmitteln fuer das Deutsche Reich," 1899, Volume II, on page 95, as follows:

".....sie fuehren daher auch haeufig im Handel den Namen "Kartoffel Zucker" und "Kartoffel Sirup" (..... thus they are frequently designated in commerce as "POTATO SUGAR" and "POTATO SYRUP").

Turning to general encyclopaedias we find in "The New International Encyclopaedia," 1903, Volume VIII, page 450, the following names as applying to the commercial products of the glucose industry:

CORN SYRUP

CORN SUGAR

And in "The Universal Encyclopaedia," 1900, Volume V, page 157, the name "CORN SYRUP" as a synonym for "Glucose."

Referring to German Encyclopaedias we quote from Brockhaus "Konversations Lexicon," the name "KARTOFFEL SIRUP" (POTATO SYRUP) as a synonym for "Glucose."

It is of interest to observe how the various States look upon this question. We quote from Bulletin No. 1 of the Iowa State Food and Dairy Commissioner, May 15th, 1907, the following:

The name "CORN SYRUP" or "Glucose," but not the name "Grape Sugar," should be used for the liquid product, usually known as "Glucose."

From the title of the Michigan Food Law, Act 123, Public Acts, 1903:

An act in relation to the sale of "CORN SYRUP."

From Bulletin No. 3 of the Illinois State Food Commission, September 1st, 1906, "Standards of Purity for Food Products," on page 10:

"CORN SYRUP" may be substituted for the word "Glucose" whenever the latter appears in this bulletin.

From the new Illinois Dairy and Food Law, ("Exhibit E") which went into effect July 1st, 1907, on page 14:

Provided that an article of food that does not contain any added poisonous or deleterious ingredients shall not be deemed adulterated or misbranded in the following cases:

1st—

2d—

3d—In the case of mixtures of CORN SYRUP (glucose) or CORN SUGAR (DEX-TROSE) OR CORN SUGAR SYRUP, with cane or beet sugar (sucrose) or cane or beet sugar syrup, in food, if the maximum percentage of CORN SYRUP (glucose), or CORN SUGAR (dextrose) or CORN SUGAR SYRUP, in such article of food be plainly stated on the label.

While the Commissioners of a large number of States have ruled along the same lines, Illinois has sanctioned by Act of Legislature the name "Corn Syrup" as a synonym for "Glucose" and the name "Corn Sugar" as a synonym for "Dextrose," (the latter commonly known as "Grape Sugar.")

Note that in the Illinois Law the name "Corn Syrup" precedes the name "Glucose."

Referring to a document of the U. S. Government, namely Report No. 516, 56th Congress, First Session, we quote from the testimony given before the Senate Committee on Food Adulteration, as it appears on pages 90 and 93:

(Senator Mason questioning):

"Then when you have a blended or mixed syrup of cane or CORN SYRUP," etc.

"In manufacturing syrup, do you use anything in your factory besides sugar, either from corn or cane—either cane sugar or CORN SUGAR or maple sugar, I mean?"

That the name "Corn Syrup" as a synonym for "Glucose" is officially recognized, is shown in Bulletin No. 59, Bureau of Forestry, United States Department of Agriculture, entitled "The Maple Sugar Industry." The 24th item of the index of said Bulletin attached hereto and marked "Exhibit F," reads: "CORN SIRUP (see Glucose)."

We now wish to direct attention to official utterances on this subject by the U. S. Department of Agriculture:

By virtue of the authority given Secretary Wilson in the Appropriation Act of March 3d, 1903, to establish standards of purity for food products, the Secretary of Agriculture commissioned the Committee on Food Standards of the Association of Official Agricultural Chemists to collaborate with him in the work of establishing food standards. This committee consisted of the following gentlemen:

H. W. Wiley, Washington, D. C.

H. A. Weber, Columbus, Ohio.

M. A. Scovell, Lexington, Ky.

E. H. Jenkins, New Haven, Conn.

Wm. Frear, State College, Pa.

This committee met on several occasions at various points in the United States, for the purpose of listening to arguments and obtaining evidence from food manufacturers as to proper standards to be established, having first circulated tentative standards to the trade for consideration and discussion. The meetings held by this committee usually lasted about a week at each place.

Having heard the evidence and arguments of manufacturers and scientists, and the criticisms of the tentative standards, the committee in some instances modified or changed the tentative standards and then submitted, some weeks after each meeting with the manufacturers, to the Secretary of Agriculture the standards they wished to recommend as proper standards for proclamation.

In each instance, so far as known, the Secretary of

Agriculture accepted without question or change the standards recommended to him by such committee and established them as official standards.

The Secretary of Agriculture has proclaimed standards as aforesaid on four separate occasions, namely:

Circular No. 10, on Nov. 20, 1903.

Circular No. 13, (Superseding No. 10) on Dec. 20, 1904.

Circular No. 17, (Supplementing No. 13), on March 8, 1906.

Circular No. 19, (Superseding 13 and 17) on June 26, 1906.

The language used by the Secretary of Agriculture in proclaiming these standards is as follows:

Whereas, the Congress of the United States, by an Act approved June 3, 1902, authorized the Secretary of Agriculture to establish standards of purity for food products; and

Whereas, he was empowered by this Act to consult with the Committee on Food Standards of the Association of Official Agricultural Chemists and other experts in determining these standards; and

Whereas, he has in accordance with the provisions of the Act availed himself of the counsel and advice of these experts and of the trade interests touching the products for which standards have been determined, and has reached certain conclusions based on the general principles of examination and conduct hereinafter mentioned;

Therefore, I, James Wilson, Secretary of Agriculture, do hereby proclaim and establish the following standards for purity of food products, together with their precedent definitions, as the official standards of these food products for the United States of America.

(Signed) JAMES WILSON.

The principles referred to, on which the standards are based, are as follows:

1. The standards are expressed in the form of definitions with or without accompanying specifications of limit in composition.

2. The main classes of food articles are defined before the subordinate classes are considered.

3. The definitions are so framed as to exclude from the articles defined substances not included in the definition.

4. The definitions include where possible those qualities which make the articles described wholesome for human food.

5. A term defined in any of the several schedules has the same meaning wherever else it is used in this report.

6. The names of food products herein defined usually agree with existing American trade or manufacturing usage; but where such use is not clearly established, or where trade names confuse two or more articles for which specific designations are desirable, preference is given to one of the several trade names applied.

7. Standards are based upon data representing materials produced under American conditions and manufactured by American processes, or representing such varieties of foreign articles as are chiefly imported for American use.

8. The standards fixed are such that a de-

parture of the article to which they apply above the maximum or below the minimum limit prescribed is evidence that such articles are of inferior or abnormal quality.

9. The limits fixed as standards are not necessarily the extremes authentically recorded for the articles in question, because such extremes are commonly due to abnormal conditions of production, and are usually accompanied by marks of inferiority or abnormality readily perceived by the producer or manufacturer.

It is evident from the work of the Committee that it intended to establish the proper name or names of each article, and having stated a name and described the substance or substances combined under that name, to exclude all other substances from recognition under such name. This is clear from the Third principle on which the standards are based:

"3. The definitions are so framed as to exclude from the articles defined substances not included in the definition."

It is also evident from the manner in which the investigations were carried on that the aim of the committee was not only to ascertain what were recognized names for food products, but also what were reasonable standards under American conditions, for the Seventh principle, upon which the standards are based, reads:

"7. Standards are based upon data representing the materials produced under American conditions and manufactured by American processes"

Therefore, the Secretary of Agriculture ascertained at the very outset that there was an American food product known as "Corn Syrup," for Circular Number 10, containing the very first standards he proclaimed, contains the name "Corn Syrup" as the name of a food product.

Whatever the evidence showed as to what substance or substances had been recognized under the name of "Corn Syrup," there certainly is no doubt that there was at that time some substance known and recognized under the name of "Corn Syrup"; in other words, there was an American food product known as "Corn Syrup"; and under the act of Congress it was the duty of the Secretary of Agriculture not to disregard or ignore that name and that product, but to investigate what substance was known under that name and then to fix the standard accordingly.

Circular Number 10 shows that the Secretary of Agriculture not only found that there was a food product known as "Corn Syrup" on Nov. 20, 1903, but that he also learned what that product was and of what it consisted, as he then proclaimed and published his finding, recognizing the name "Corn Syrup" and stating of what it consisted, his proclamation being:

GLUCOSE PRODUCTS.

3. Glucose Syrup or Corn Syrup is Glucose unmixed or mixed with syrup or molasses.

STANDARD.

Standard Glucose Syrup or Corn Syrup is glucose syrup or corn syrup containing not more than 25% of water nor more than 3% of ash.

It appears also that he found no reason to change his conclusion from Nov. 20, 1903, until June 26, 1906, for besides having recognized "Corn Syrup" in Cir. No. 10 on Nov. 20, 1903, he again recognized it in Cir. No. 13, on Dec. 20, 1904, and took particular

notice of it on that date by broadening the definition so as to include "Refiners' Syrup" as a substance sometimes mixed with a certain other substance (Glucose), the mixture being known as "Corn Syrup," his proclamation then being:

GLUCOSE PRODUCTS.

3. Glucose Syrup or Corn Syrup is glucose unmixed or mixed with syrup, molasses or refiners' syrup, and contains not more than 25% of water and not more than 3% of ash.

The Food Standards Committee was amply enlightened by proper testimony on this subject at each meeting at which it was considered, and never raised the point that there was no product known as "Corn Syrup," nor disputed the fact that the substance named in the standards as constituting "Corn Syrup" did constitute "Corn Syrup," there being absolutely no evidence before them to dispute such fact or warranting them to abolish the name "Corn Syrup."

We desire to call especial attention to the fact that we were not accorded an opportunity of submitting arguments in favor of having the name "Corn Syrup" continued, although a representative of this company, personally known to each and every member of the Committee, met with the Committee for several days prior to June 26, 1906, and as late as June 25th.

It may be well to consider at this point whether the definition established by the Secretary of Agriculture was a reasonable or proper definition; or whether he was misled by the testimony. Bearing in mind the seventh principle, upon which the standards are based, and remembering that the standards are based on AMERICAN conditions, we find that a product named "Corn Syrup" is a product that in America is entirely made from corn, the industry being an important one, the annual conversion of corn into corn syrup being very great, and the industry being, of all the American industries, perhaps one of the most beneficial to the American people. Therefore, taking American conditions into consideration, this product—a syrup made entirely from corn—is very properly called in America a "Corn Syrup." As a matter of fact, then, this product, being a syrup here made from corn, the Secretary of Agriculture, in calling the product a "Corn Syrup," under American conditions, spoke the plain truth and gave it its proper name.

It will not be amiss to consider here, in support of this contention, the decision by the Supreme Court of Michigan, referred to above, wherein the court says:

" * * * The term Glucose is obnoxious to many, if not a majority, of the public, and is misunderstood by them. They do not know that in this country glucose is now made entirely from corn, and that the term 'GLUCOSE' AND 'CORN SYRUP' ARE COMMERCIALY SYNONYMOUS. This fact is known to the manufacturers and, perhaps, the dealers. A prejudice exists against the term 'Glucose' because that material can be manufactured from many substances, including sawdust. In Europe it is mainly made of potatoes. By many it is associated with a glue factory. * * *

"We have, therefore, a valuable and healthful product made from two pure, valuable and healthful ingredients, advertised and placed upon the market for what it really is, without any decep-

tion, fraud or chance to injure the public in any way. * * *

"It is a fair presumption that the legislature in enacting this law recognized the obnoxious character of the term 'Glucose' among the people, and permitted and intended to permit, a mixture of CORN SYRUP and Cane Syrup to be sold under the name of 'Corn Syrup.'"

Not only was the Secretary of Agriculture justified by the facts in calling it "Corn Syrup," but, to our mind, it was a matter of policy in the interest of our great corn-producing nation.

It is quite pertinent to state in this connection that we have been advised from time to time, unofficially, of utterances of the Chief of the Division of Chemistry of the Department of Agriculture, to the effect that corn syrup or glucose is not a syrup in fact, and that the only substance recognized by the Department of Agriculture as a syrup is "the sound product made by purifying and evaporating the juice of a sugar-producing plant, without removing any of the sugar." While it is an open question whether the definition established for sugar syrup, as stated in paragraph 5, on page 10, of Circular No. 19, June 26, 1906, is not in contradiction with this definition, and while we do not intend submitting any arguments on that point, we wish to state with all emphasis that glucose or corn syrup is a syrup in fact. The total consumption in the United States of corn syrup as a table syrup reaches enormous proportions. We ship from our factories alone upwards of thirty carloads per day. These syrups do not sail under false colors, they are sold and traded in as corn syrups and the consumer knows them as such, uses them as such and pays for them as such. As said before, these corn syrups consist, as a rule, of 90% of glucose, the balance being a flavoring material, such as refiners' syrup, etc. To our mind, it does not seem consistent that a product which is consumed in such large quantities as a table syrup and has for years been known as "Corn Syrup" should now be considered a misbranded product when offered under its old established name. Such a ruling would certainly be a violation of the seventh principle referred to above.

Corn syrup is a typical American product, produced under American conditions and manufactured by American processes; it is recognized by American business houses and the American trade in general.

The following reference is from Webster's Unabridged Dictionary, 1891:

Glucose, the trade-name of a SYRUP, obtained as an uncrystallizable residue, in the manufacture of glucose proper, and containing in addition to some dextrose and glucose, also maltose, dextrin, etc.

We have stated above that the name "Corn Syrup" appears as early as 1884 in a government report, a copy of which is attached hereto and marked "Exhibit A." It has been used by the trade ever since and is in daily use today—both in the sense of being synonymous with "Glucose" and of being the name of a special class of table syrups. This will be seen from the price lists and trade journals attached hereto and marked "Exhibit G" to "Exhibit Z."

We further attach two booklets issued as advertising matter by the predecessors of this company—the one marked "Exhibit B" was published about ten years ago, the one marked "C" about four years ago.

Finally we attach a sample label of one of our best

known brands of corn syrups, marked "D." It will be seen that it meets the very spirit of the Food and Drugs Act, in that the name "Corn Syrup" indicates the material from which the syrup is made and in that the percentage amounts of each ingredient are stated specifically, something which is not required under the Food and Drugs Act.

It may not be out of place to state that the name "Corn Syrup" is largely responsible for the disappearance from the market of spurious goods offered as "New Orleans Molasses," "Honey Drips," "Honey Syrup" and similar fancy names. After the predecessors of this company had commenced advertising broadcast the nature and merits of corn syrup, those fraudulent products were withdrawn gradually, so that today the number of misbranded syrups on the market is very small. In this way our "Corn Syrup" campaign has produced practically the same results as the food laws.

In conclusion we wish to direct attention to the latest standard publication on foods, the author of which is Dr. H. W. Wiley, Chief Chemist, Division of Chemistry, U. S. Department of Agriculture. It is entitled "Foods and Their Adulteration," and was published in the spring of the current year. We quote from the chapter on syrups, page 479:

By far the greater part of the syrups, used in the United States, are mixtures of two or more saccharine substances. The glucose of commerce is the base and perhaps the chief constituent of the most of these mixtures. The glucose, being colorless and of a thick body, forms an ideal base, as far as the physical properties are concerned, for a table syrup. The quantity used varies very largely, but in general the glucose constitutes by far the larger percentage of the mixed product . . . The product is as a rule attractive, palatable and wholesome . . . If a syrup is to be considered in the light of the definitions already given, as the result of evaporation, after proper clarifications of the saccharine juices of sugar-producing plants, it is doubtful if the term should be used in connection with the mixed products which have been described. I have used it because these are the commercial designations. . . . The production of straight, pure syrups made from maple sap and the sap of the sugar cane and of sorghum and, in certain conditions, from sugar, can be easily secured in quantities sufficient to supply the demand not only for the consumption of pure syrups but also for supplying the materials which, when mixed with pure glucose, produce the mixed syrups of commerce. . . .

Here, then, it is clearly stated that glucose or corn syrup mixtures are the "syrups of commerce."

Thus the scientific and commercial evidence, as well as the food authorities, are in accord with our contentions, forming the subject of this brief. WE COULD ADD MATERIALLY TO THE REFERENCES QUOTED. HOWEVER, WE ABSTAIN FROM DOING SO, AS IT ONLY WOULD BE A REPETITION OF THE EVIDENCE SUBMITTED.

Not many years ago this government went to a great expense in trying to impress upon the European governments, in the interest of this corn-producing nation, the great value of corn as a human food product, by sending a special agent with a staff of as-

sistants to European cities to give practical demonstrations of its value as a food, which resulted in largely increased exportation of corn. The Secretary of Agriculture should be the very last official to change that policy, by refusing to sanction a name that will tend to increase the consumption of corn as a human food."

The following opinions were submitted to the Board as a supplement to Dr. Wagner's brief:

OPINIONS OF STATE FOOD CONTROL OFFICIALS.

Chicago, Aug. 31, 1907.

Dr. T. B. Wagner,
General Superintendent,
Chicago, Ill.

Dear Sir—Replying to your letter, etc., for the purpose of defining the terms "Corn Syrup" and "Glucose," as applied to Food Products under the new State Food Law of Illinois, will say that the terms are synonymous and Syrup may be labeled either "Corn Syrup" or "Glucose Syrup." Under the Illinois law we give preference to the term "Corn Syrup" as it is a truer designation of the origin of the product and clearly indicates its character to the consumer.

Yours very truly,

A. H. JONES,
Commissioner.

Des Moines, Ia., Aug. 29, 1907.

Dr. T. B. Wagner,
Corn Products Refining Company,
Chicago, Ill.

Dear Sir—In reply to your inquiry as to the attitude of this department relating to the use of terms "corn syrup" and "glucose," let me say that this department has already ruled in our bulletin number one, page 18, copy of which is herewith enclosed, that these terms are held to be interchangeable and synonymous. It seems to me very unwise to attempt to change the usage of the trade in this product, particularly as the term "corn syrup" has been in use so long and is accurately descriptive of the source and character of the product.

Yours truly,

(Signed) H. R. WRIGHT,
Commissioner.

St. Paul, Aug. 21, 1907.

Dr. T. B. Wagner,
Corn Products Refining Company,
Chicago, Ill.

Dear Sir—Replying to your recent inquiry, for the purpose of defining the terms corn syrup and glucose as applied to food products within the State of Minnesota. The words corn syrup and glucose are hereby deemed synonymous and either may be used at the option of the manufacturer or jobber when placed upon the label whether sold singly or compounded.

Yours truly,

(Signed) EDWARD K. SLATER,
Commissioner.

Brookings, S. D., Aug. 22, 1907.

Dr. T. B. Wagner,
Corn Products Refining Company,
Chicago, Ill.

Dear Sir—With reference to the labeling of corn products we endorse the name "Corn Syrup" as the proper designation for the product known to the trade as "glucose." We shall make our rulings accordingly, believing that the interests of the public are best protected by giving the product a name to which it is obviously entitled and which is intelligible to the humblest consumer and clearly indicates the character as well as the source from which it is obtained. As to the term "Corn Starch Syrup," we do not consider it well chosen for the reason that it would create a new trade designation, which

might lead to considerable confusion and, in our opinion, would not benefit the consumer.

Yours truly,

(Signed) A. H. WHEATON.
Agricultural College, Aug. 24, 1907.

Dr. T. B. Wagner,
Care of Corn Products Refining Company,
Chicago, Ill.

Dear Sir—Replying to your request for information with regard to the ruling of North Dakota concerning the term "Corn Syrup" versus "Glucose." When we began to enforce the law in this state, we found products on the markets labeled "Corn Syrup."

As this term did not seem to conflict with the requirements of our law, and was not a distinctive name of some other product, therefore, we have not made any ruling which would prevent the proper use of this term as a synonym for Glucose.

Yours very truly,

(Signed) E. F. LADD,
Food Commissioner.
Columbia, Mo., Aug. 29, 1907.

Dr. T. B. Wagner,
Corn Products Refining Company,
Chicago, Ill.

Dear Sir—Replying to your recent inquiry regarding the use of the terms "glucose" and "corn syrup," allow me to say, in my opinion the term "corn syrup" is infinitely more descriptive of the article than "glucose." The word "glucose" is offensive to many. I have not yet ruled on this point, but in all probability, when I do I shall hold the two words synonymous, giving "corn syrup" the preference.

Yours truly,

(Signed) R. M. WASHBURN,
Commissioner.
Harrisburg, Pa., Sept. 3, 1907.

Dr. T. B. Wagner,
Corn Products Refining Company,
Chicago, Ill.

My Dear Sir—In reply to your recent inquiry regarding the use of the terms "glucose" and "corn syrup," would say, in my opinion the term "corn syrup" is more descriptive of the article than "glucose." The word "glucose" is not understood by many of our citizens. I have not as yet ruled on this point, but in all probability when I do I shall hold the two synonymous. I believe "corn syrup" is plainer and better understood by the consuming public.

Very truly yours,

(Signed) JAMES FOUST,
Commissioner.
Columbus, O., Sept. 4, 1907.

Dr. T. B. Wagner,
Corn Products Refining Company,
Chicago, Ill.

Dear Sir—Replying to your inquiry as to whether or not the words "Corn Syrup" and "Glucose" are synonymous and may be used interchangeably, have to say that this particular question has not been determined by this department. I might say, however, that the sale of Corn Syrup in this state has been permitted when so labeled.

From my examination of this subject, I am of the opinion that "Corn Syrup" is the proper designation to be given the product, and the same will receive my approval. Manufacturers and dealers may use either the words "Corn Syrup" or "Glucose" and comply with the laws of this state.

Yours very truly,

(Signed) R. W. DUNLAP,
Commissioner.

OPINION OF CHEMISTS On the Meaning of the Word "Syrup" and the Use of the Term "Corn Syrup"

(Under the "Food and Drug Act" of 1906)

Presented to the
HON. JAMES WILSON, SECRETARY OF AGRICULTURE,
DECEMBER, 1907.

Sheffield Scientific School of Yale University.
From Prof. Wm. H. Brewer, 418 Orange Street.

NEW HAVEN, CONN., December 18, 1907.

Mr. E. T. Bedford, Pres. Corn Products, Refining Co., 26
Broadway, New York.

Dear Sir—Your agent called on me today, asking my opinion as to the propriety of the use of the term "Corn Syrup" applied to a certain sugary product of corn.

My opinion is that it is descriptive, truthful and proper; I think eminently so. Moreover, the term is so old, has been so long used, that it seems to me to be such a wrecking of language to limit the term syrup to only cane-sugar sweets, and to use the term "glucose" syrup would not be so truthfully descriptive.

It is but fair to say, regarding the basis of my opinion on this subject, that I began the study of chemistry more than sixty years ago, and ceased teaching it less than twenty years ago. I have been Professor of Agriculture in Yale University since 1864, retired five years ago, but during that service paid much attention to the matter of food production. As a member of the National Academy of Sciences, I was on the commission appointed by that body to investigate this subject of starch sugars, and syrups. My investigation related to the commercial uses, the use as food, in drinks, their relation to the public health, and the literature of the subject.

The report of that commission was published by the Academy in 1884, and is, so far as I know, the most elaborate of any investigation on the subject.

It is only necessary to consult that report to see that "corn syrup" was one of the terms then used; that there are analyses of "syrups" as well as solids, and in the bibliography, the words "syrup" and "starch syrup" are cited at much earlier dates.

Yours respectfully,

(Signed) WM. H. BREWER.
Augustus H. Gill, Ph. D.,
525 Boylston Street,

Boston, December 19, 1907.

The Corn Products Refining Co., New York, N. Y.

Dear Sirs—I have carefully considered the matter of the name "Corn Syrup" as applied to one of your products. There can be no question as to the correctness of the term "syrup." Inasmuch as it is obtained from corn starch which makes up the largest part of the corn kernel it seems to me eminently proper to call it "corn syrup." In fact when obtained in the solid condition it is called by scientific authorities "corn sugar."

In my opinion the name is a proper one and not calculated or intended to mislead. In fact it seems to me that any other name would be misleading.

Yours very truly,

(Signed) AUGUSTUS H. GILL.
Prof. C. F. Chandlers' Report.
NEW YORK, December 18, 1907.

Having been requested to express my opinion upon the propriety of the use of the word "syrup" for solution of dextrose, etc., made from starch, I would make the following statement:

The word "syrup" is perfectly familiar to everyone. It is readily understood and has a generally accepted meaning.

Any thick, sweet liquid is a syrup, no matter what kind of

sugar it contains. It might contain either one of the following sugars or contain two or more of them at the same time.

Cane sugar is found in sugar cane, the sugar beet, and maple juice.

Dextrose—Found with levulose in the sweet juice of all acid fruits, such as grapes, plums, apples, pears, peaches, currants, raspberries, etc., and in sugar house molasses derived from the beet or the cane. Produced from starch by the action of acids in association with maltose.

Levulose—Found as above mentioned in association with dextrose in the juice of acid fruits and in molasses from sugar cane and the beet. Produced by the action of acids on inulin.

Maltose—Produced by the action of malt upon starch; also together with dextrose by the action of acids on starch.

Milk sugar—Contained in milk.

A thick, sweet solution of any one or more of the above sugars would constitute a syrup in the proper acceptation and use of the word syrup. The term "syrup," therefore, conveys a definite and familiar idea to all consumers as a thick, sweet liquid containing sugar.

Now, with regard to the propriety of applying the word "syrup" to the particular thick, sweet solution of sugar obtained by treating starch with acids, I would say that it is a matter of common custom, and has been for nearly one hundred years, to call this solution of starch sugar "syrup." In all countries where it has been made and sold it has been known as syrup. Evidence of this will be found in the accompanying list of publications which date from 1813 to the present day.

In the use of the word "syrup" during the past one hundred years, it has often been qualified by an additional word indicating the source of the syrup; that is, whether it was made from potato starch or corn starch, etc. I think a mere perusal of the list of authorities which I quote would be sufficient to satisfy anyone of the truth of my statement.

[Here follows a list of authorities, which we omit.—Ed.]

It seems to me that the opinion that the use of the designation "syrup" for the solution of sugar produced from corn starch by the action of acids is fully justified, as the term syrup thus applied is readily understood, and has a generally accepted meaning, and conveys definite and familiar ideas to the general public.

Respectfully submitted,

(Signed) C. F. CHANDLER.

The following list of eminent chemists have written opinions to Secretary Wilson supporting the same views as those above, but owing to lack of space we cannot print them in full:

Prof. Charles Baskerville, Director of Laboratory of the College of the City of New York.

Prof. Marston T. Bogert, Columbia University; President American Society.

Dr. H. Carmichael, Chemical Engineer, Boston.

Prof. Irving W. Fay, Polytechnic Institute, Brooklyn.

Prof. C. H. Goessman, Massachusetts Agricultural College, Amherst, Mass.

Prof. Walter S. Haines, Rush Medical College, University of Chicago.

Prof. Chas. Loring Jackson, Harvard University, Member of National Academy of Science.

Prof. Ralph W. Langley, Flower Hospital, New York Homeopathic College and Hospital.

Dr. Ernest J. Lederle, Consulting Chemist, formerly President of New York Board of Health.

Prof. J. W. Mallet, University of Virginia.

Prof. Chas. E. Monroe, George Washington University.

Prof. S. P. Sadtler, Consulting Chemist, formerly Professor of University of Pennsylvania.

Prof. Chas. R. Sanger, Director Chemical Laboratory, Harvard College.

John A. Sherer, Analytical and Consulting Chemist; Specialty Sugar Analysis, New York.

Prof. Henry C. Sherman, Columbia University.

Prof. Edgar F. Smith, University of Pennsylvania; Member National Academy of Science.

Prof. Thos. B. Stillman, Stevens Institute.

And others not included in this list.

DR. WILEY'S CIRCULAR LETTER TO STATE FOOD COMMISSIONERS.

December 11, 1907.

Dear Sir—I am writing, by request of the Secretary, a report on the request made by the Corn Products Refining Company to use the term "corn syrup" as a synonym for glucose.

It appears from the briefs submitted that the Corn Products Refining Company aver that there is a prejudice against the word "glucose," and the people of the country will not buy it under that name.

The Food and Drugs Act forbids the sale of a food which carries any statement, design or device on the label which is false or misleading in any particular. If a person would not buy glucose under its own name, he would undoubtedly be deceived by buying it under the name of corn syrup. The term "corn syrup" cannot apply to glucose under the standards adopted by the State Dairy and Food Departments. Corn syrup is not applied to glucose in any commercial transactions of glucose. Glucose of itself has never been used upon the table for syrup, nor offered to the consumer as syrup. Under the food law the term "syrup" applied to glucose is a misnomer.

Mr. Calhoun, attorney for the company, said that "Every State in this Union except one has recognized and accepted this term 'corn syrup' as being proper." It does not seem to me that the Food Commissioners would have given this approval if they had considered that by such labeling, not only the standards which have been adopted are set aside, but also the fundamental principle of the law, which forbids a body to be sold in any deceptive or misleading way, is violated.

The term "syrup" means a syrup which is eaten on the table and which can only be made from the juice of sugar producing plants according to the standards and according to its accepted and common meaning. Thus, glucose could not possibly, with any ethical right, be known as "corn syrup." The only reason for wanting to use the name is to deceive the purchaser.

True corn syrup has been made in large quantities in this country as far back as the Revolutionary War, and especially in large quantities in the decade between 1840 and 1850, as the records of the Patent Office, which at that time contained the agricultural reports, will show. The term "corn syrup" can, therefore, apply only to the product obtained from the saccharine juices of the maize stalk, hence, to sell glucose under the name of corn syrup would be a violation of all the ethical principles on which the enforcement of the Food and Drugs Act is based.

The advertisements of the Corn Products Refining Company seek to deceive. In an advertisement in the *Grocery World*, December 9, 1907, it is stated: "You cannot buy any better syrup than Karo. It is made direct from corn, and has a smooth, rich sweetness that sugar syrup never has." There are two false statements in this proposition. Karo

syrup is never made directly from corn; glucose is not a superior product in sweetness to a real syrup.

In my opinion, to approve the request of the Corn Products Refining Company to call glucose "corn syrup" would be subversive of the fundamental principle of the Food and Drugs Act. According to Mr. Bedford's statements, confirmed by Prof. Chandler, "corn syrup is only in part glucose; glucose is simply a percentage of the product." What a travesty on the food law would be the naming of such a compound "corn syrup"!

I briefly lay the above points before you and ask for your advice in the preparation of the thesis which I am to submit on the subject. I wish you would tell me why, if you have time, you have approved of this, which to me is an extremely false and dangerous form of misbranding.

An early reply will be appreciated.

Respectfully,

H. W. WILEY.

Chief.

REPLIES FROM STATE FOOD COMMISSIONERS TO DR. H. W. WILEY'S CIRCULAR LETTER.

(BY PERMISSION.)

Office of

STATE FOOD AND DAIRY COMMISSIONER.

H. R. Wright, Commissioner.

W. E. Smith, Deputy.

Des Moines, Iowa, Dec. 20, 1907.

Dr. H. W. Wiley,

Chief Bureau of Chemistry,

Washington, D. C.

Dear Sir—I have at hand your letter of December 11th. I enclose you herein the first bulletin published by this department on May 15, 1907, on page 10 of which we made a statement that we would accept the name "corn syrup" and the attitude of this department has been as there expressed.

If I understand your contention correctly, it is, briefly stated, that the word "syrup" as defined by the standards adopted by State Dairy and Food Departments, and the standards adopted by the National Department, is restricted to the cane product.

I do not understand that there is authority given to the Dairy and Food Departments of the State to write into any standards they may adopt new meanings for terms. If they may do so to any degree, then it is logical to believe that they may create wholly new terms and compel their use on pain of successful prosecution. It seems to me that the right to use a certain term exists, if it exists at all, wholly outside of any standards except those fixed by direct enactment of law. With this thought in mind, let me call attention to the fact that the word "syrup" has not of late years been restricted to the cane sugar or sucrose product.

As to the correctness of the foregoing statement, permit me to call attention to the fact that the new International Encyclopedia, under title "glucose," specifically mentions the word "corn-syrup;" the Encyclopedia Americana under the subject "Glucose" mentions the term "cereal syrup;" Bulletin 66, Bureau of Chemistry, U. S. Department of Agriculture, page 31 and following, uses the word "syrup" in various ways relating to glucose and uses specifically the term "glucose syrups and sugars." In Bulletin 73, Bureau of Chemistry, U. S. Department of Agriculture, a paper by Edw. Gudeman, on page 66, reads as follows: "Glucose is a thick syrup, etc." So it seems to me that the term "syrup" at least as applied to the liquid product, usually known as "glucose," is not a misnomer, that it is not now in use, and that this term is common among scientific people, as well as people in trade. I am, therefore, unable to find anything in the Food Law of

this State which would enable me to prevent the use of the word "syrup" as applied to the product in question. It seems to me that the test of the meaning of a Food Law is the ability to secure a conviction before a court on a given state of facts and and it is quite plain to me that I would have extreme difficulty in convincing a court that the word "syrup" means solely, and only, and always, the cane product.

As applied to glucose the term "syrup" having been approved by usage, it seems to me extremely appropriate that it should be modified by some term which would make a distinction between the glucose product and the cane product, and it seems to me that the term "corn syrup" is appropriate and logical and not deceptive. Your suggestion that true corn syrup is syrup made from the expressed saccharine juices of the corn stalk does not appeal to me, for the reason that the word "corn" in this country to the average mind means the grain eight times out of ten and the term "corn syrup" applied to a product made from a stalk would be deceptive with ninety-nine out of one hundred of the people of this State, and they would be extremely surprised to know that the product was not made from the grain. To make a name which would give to the people of this part of the country the idea of the natural source of the syrup made from corn stalks, would require the use of the term "corn stalk syrup." For the same reason the term "corn syrup" is lucid and descriptive to everybody in the corn belt, and my opinion is that ninety-nine persons out of a hundred called upon to define "corn syrup," even if they had never heard the term before, would define it as syrup made from corn—meaning a syrup made from the corn grain.

I am, therefore, of the opinion, first, that the word "syrup" is the proper general term to apply to the liquid glucose product; that the term "corn syrup" is as logical as "maple syrup," or "cane syrup"; that it is accurately descriptive of glucose made from corn; that it is not deceptive to the scientifically trained mind. Neither does this term deceive the mass of people who have not been so trained, but who do know quite accurately what the words signify respectively or when put together.

You make the suggestion that because of a prejudice against the word "glucose," the buyer is deceived if the article is sold to him under the name "corn syrup." The prejudice is not against the article but against the name. Prejudice is by reason of ignorance as to what glucose is. There is no prejudice against a clean, wholesome, cheap product. It seems to me that to use an accurately descriptive title, such as "corn syrup" is, in the direction both of accuracy and of enlightenment of the buyer rather than deception.

Of course, any other deceptive or untrue statements, which mixed syrup manufacturers make on their labels, will be met with vigorous prosecution. I note your suggestion that other statements in regard to "corn syrup" are deceptive to a degree, and if so, they are, of course, the basis of successful prosecution, but I cannot see that that has any connection with their legal right to use the term "corn syrup."

Permit me to call attention to the case of *People vs. Harris*, Supreme Court of Michigan, 1902, in the Northwest Report, page 402.

Yours very truly,

H. R. WRIGHT,

Commissioner.

STATE FOOD COMMISSION, STATE OF ILLINOIS.

CHICAGO, December 22, 1907.

Dr. H. W. Wiley, Chief of Bureau of Chemistry, Washington, D. C.

Dear Sir—I want to thank you for your kind letter of December 11th in regard to the subject of Glucose or Corn Products Syrup, and in reply would say that I would like to agree with you in regard to your contention in this matter, but under the circumstances I cannot well do so as for the

past eight years, as State Food Commissioner of Illinois, I have taken a different position in regard to these subjects. When I was appointed State Food Commissioner of Illinois in 1899 (just after the Illinois State Food Commission was created by our General Assembly) I met with the Commissioners and chemists of the National Association of State Dairy and Food Departments at their annual convention held at the Palmer House, in the City of Chicago, in this State, and after a conference with the Commissioners and State Chemists of the different states on these subjects, I substantially made the ruling that Glucose Syrup and Corn Syrup were synonymous terms, and I have never had occasion to change the ruling or my mind on the subject since the ruling was made in 1899.

I do not think that the use of the terms "Corn Syrup" and "Glucose Syrup" for commercial purposes are misleading, for the public have been educated to understand that the terms are so used and consequently there would be no danger so far as the label is concerned.

I must dissent from your position for another reason: My information is to the effect that Corn Syrup is applied to Glucose in commercial transactions and is recognized in reference works as a synonym for glucose. Glucose is used upon the table for syrup, and is so offered to the consumer in Illinois, and it was recommended for that purpose by a committee of eminent chemists. I am not aware that the food law, if you mean the National Food Law, refers specifically either to "syrup" or "glucose," or in fact, defines any food products except confectionery, and any inference that the fundamental principles of the food law are violated in labelling commercial glucose "Corn Syrup" is based on your assumption that corn syrup is not as distinctive, as honest, and as well understood a name referring to the syrup made from corn, as glucose, which assumption is the very point in contention.

I do not find any authority to agree with you as to your definition of a syrup, not even the standards to which you refer. In these standards "sugar syrup" is defined as "the product made by dissolving sugar to the consistency of a syrup, and contains not more than thirty-five per cent of water."

I refer you also to the definition of Syrup in the Standard, Worcester and Webster dictionaries.

You will note also that in the definition of the terms "glucose," "syrup" and "corn syrup," they are used synonymously in the American Encyclopedia and the Universal Encyclopedia.

The term "glucose" is unfortunate, as not being in the least descriptive of the product, and moreover has several different meanings.

This view is not new with me, but is one I have held ever since I became interested in Pure Food work and is copied in the Illinois Pure Food Law, and has been reaffirmed by me in every annual report I have made during the past eight years as Food Commissioner of Illinois.

I desire to call your attention also to the new revision of the Illinois State Food Law that went into effect July 1st, 1907, which specifically allows the labelling of commercial glucose as "corn syrup," and whatever my views on this subject might be, I could not do otherwise than enforce the law as I find it.

Sincerely yours,

A. H. JONES,
Commissioner.

SOUTH DAKOTA FOOD AND DAIRY COMMISSION.

A. H. Wheaton, Commissioner.
Home Office, Brookings, South Dakota.

December 16, 1907.

Hon. H. W. Wiley,
Bureau of Chemistry,
Washington, D. C.

My Dear Sir—Answering yours of December 11th, will say that in regard to Corn Syrup manufactured by the Corn Products Refining Company, Professor Shepard and myself have spent some time examining into the process of manufacture of this product, and we came to the conclusion that there was no harm in labeling it "Corn Syrup" and where it was mixed with other syrups, if they would state on their labels the percentage of Corn Syrup and Cane Syrup, etc., that it would be an honest statement to the purchaser of what it contained.

Corn Syrup as made by them is actually made from Corn, and it is not all Glucose. It is of a syrupy consistency. We have no objection to the definition you give it, but it is not quite broad enough, and we think that inasmuch as it is made from the product Corn, it designates it from Glucose made from other substances, as Glucose may be made from quite a number of different products.

The business as conducted in Wisconsin, Illinois, and Iowa produces a product that must be wholesome and harmless. There has been a great deal of correspondence over this matter, pro and con, and I think likely the question of labeling will eventually have to be decided very much the same way the Whisky question has been decided. We want to be right and at the same time not too technical.

Hoping this will explain our position, I am,

Yours truly,
(Signed) A. H. WHEATON.

LIQUOR DEALERS WIN SUIT.

Warwick M. Hough of St. Louis, attorney for the National Association of Wholesale Liquor Dealers, secured a decided victory in the decision of the Supreme Court in a case he argued recently before that tribunal. The decision sustains a decision of Judge Elmer B. Adams of St. Louis when on the district bench.

The case was entitled "The United States, plaintiff in error, against the A. Graf Distilling Company of St. Louis." It involved primarily the construction of the internal revenue law. Mr. Hough claimed that the revenue law could not be construed so as to prevent the owner of distilled spirits from adding coloring matter thereto, and the court sustained the point.

Three barrels of distilled spirits were seized by the revenue officers at St. Louis in June, 1902. They were in possession of customers of the A. Graf Company, who claimed them. The ground of seizure was that the barrels had had a portion of the original contents removed and the amount so abstracted supplied by introduction of spirits of a different quality from the spirits originally gauged therein and the color restored by the addition of sugar coloring or prune juice.

It is predicted that this decision will have a very important bearing on the case which has been instituted to test the scope and validity of the National Food and Drugs Act.

R. Weinberg, of Philadelphia, Pa., who was convicted of selling skimmed milk and fined \$60 and costs, preferred to go to jail rather than pay the fine. He can work out his sentence at the rate of \$1 per day.

ICE CREAM THICKENERS

Address by Prof. G. E. Patrick, Chief of Dairy Laboratory, Bureau of Chemistry, Department of Agriculture, delivered at the meeting of the American Chemical Society, Chicago, Ill., January 3rd, 1908.

(By Stenographic Report for THE AMERICAN FOOD JOURNAL.)

Mr. Patrick: Ladies and Gentlemen—During the last eight or nine months the dairy laboratory of the Bureau of Chemistry has done considerable work in the analysis of ice creams, not only with reference to their fat content but also in respect to the materials used frequently to thicken or stiffen them and in part to increase their volume. At the outset I wish to give credit to Mr. Herbert S. Bailey and Mr. Byron McClelland for their valuable assistance.

The thickeners most commonly used are gelatin, gum tragacanth, starch, dextrin and rennet. Eggs may be added to this list, although for obvious reasons they should be regarded in a somewhat different light from the other substances named. Dextrin I have not yet found in any commercial ice cream; I include it in the list because it is highly recommended to the trade in a certain ice cream publication, and therefore I assume it to be in actual use. Added starch, both corn starch and potato starch, I have identified microscopically in certain samples of tragacanth thickeners. Gum tragacanth always contains a little starch as a natural impurity. The added starch may perhaps be used to facilitate the powdering of the gum; but it is by no means always used.

Gelatin has been used as an ingredient of ice cream for a long time; the vegetable thickeners have come into use very recently. The most commonly employed of these is gum tragacanth. This is the only natural gum or jelly that I know to be in use. Last October in a paper on this subject at the annual meeting of the agricultural chemists I stated my belief that there was in use another vegetable gum or jelly besides tragacanth—referring to it as “possibly agar-agar but probably something else”—since which time, however, I have concluded that the substance I then took for a “vegetable gum or jelly” was in reality nothing but dissolved starch, i. e., starch which I had changed into the soluble form by my method of analysis.

The method of analysis adopted—after trial of other and more elaborate schemes—is simple and presents little that is new chemically. To clarify the ice cream, preparatory to the tests for gums, we coagulate the milk proteids with acid and heat; and for the detection of the gums we use alcohol and acid.

The details of the method are as follows: Dilute 50 cc. of the ice cream with 25 cc. of water—this merely for fluidity—boil for half a minute to fully dissolve the thickener if present, add 2 cc. of a 10 per cent acetic acid, heat again just to boiling, add three rounding teaspoonfuls of kieselguhr and filter immediately, while hot. The filtrate should be perfectly clear. In this liquid we test for gums and dextrin. Gelatin and starch may also be tested for in this liquid, but as a considerable part of the gelatin present in the ice cream is held on the filter by the kieselguhr it is better to test for it in the original material, which we do by Stoke's picric acid method (Analyst 1897, 320), and as to starch, I have not made com-

parisons enough to know whether it is better to test for it in the clear filtrate or in the original ice cream, diluted and boiled but not filtered. In our routine work we have always tested for it in the last-named place, by the usual iodine test.

To test the gums: To 3 cc. of the clear filtrate in a test tube—or a cartridge-shaped sample tube, which is more convenient for estimating relative volumes of the liquids added—add 12 cc. of 95 per cent alcohol and mix. A precipitate always results, consisting of proteids and phosphates of the milk. Now add 3 cc. of an acidified alcohol, prepared by adding 5 cc. concentrated hydrochloric acid to 95 cc. of 95 per cent alcohol. Upon mixing, or shaking, the milk proteids and phosphates dissolve completely, leaving the liquid perfectly clear if the ice cream examined was made of pure cream or milk with the addition only of sugar and a pure flavoring extract. If tragacanth is present there will remain a coherent precipitate, stringy, or becoming stringy upon mixing by inverting the tube repeatedly. If dextrin is present in more than minute quantities, or if gelatin is present in a considerable or large quantity (perhaps 0.5 per cent or upward in the ice cream) the liquid will be opalescent or milky, or with a flocculent precipitate if gelatin is present in large quantity. If dissolved starch is present in the liquid, it will form a light precipitate which gradually becomes flocculent. And if eggs were an ingredient of the ice cream, to the amount of about four eggs or upward to the gallon, an opalescence appears in the test soon after the addition of the acid-alcohol and increases gradually for some minutes until it becomes perhaps a milkiness or turbidity. It is an egg proteid.

In case the liquid is not clear (after the addition of the 3 cc. of acid-alcohol as directed) add now 3 cc. of water and mix well. Gelatin and the egg proteid dissolve immediately—unless the gelatin is present in very large quantity, when it may require several minutes to dissolve completely. The stringy precipitate from gum tragacanth dissolves but very slightly; it remains in its characteristic form. Dextrin and precipitated starch dissolve only in part, leaving in the one case an opalescence or a fine non-flocculating turbidity, not settling for many hours, and in the other case a light precipitate soon becoming flocculent and settling. If very much starch is present and only a little tragacanth, the former may entirely destroy the coherent stringy nature of the tragacanth precipitate, causing it to come down flocculent along with the starch, and undistinguishable therefrom. In this case the tragacanth would not be discovered. To avoid this error one has only to repeat the analysis from the beginning and eliminate the starch by heating to only 60 degrees C. both before and after adding the acetic acid, instead of heating to boiling as directed above; the clear filtrate thus obtained will be free of starch and will yield the characteristic tragacanth precipitate if any of that substance be present. Likewise a very large amount of gelatin, accompanying a very small amount of tragacanth, will sometimes modify considerably the final

appearance of the tragacanth precipitate (after the addition of the water), leaving it in much finer and shorter strings or shreds than it presents when occurring alone. The ordinarily careful observer will not, however, fail to recognize the tragacanth in such a mixture.

In applying the above described methods to the testing of different kinds of ice cream, certain minor phenomena observed should be mentioned, to prevent possible erroneous conclusions on the part of those who may try the method:

Chocolate ice cream always contains a little starch, which shows itself in a small precipitate in the test; and even when starch is eliminated by employment of the lower temperature there still remains, even after the dilution with water, a trifling turbidity—due to exactly what, I do not know, but probably a constituent of the cacao bean.

Strawberry and peach ice creams yield in the test very light, cloudy, flocculent precipitates of pectin, usually invisible at first and only appearing in light cloud-like forms after standing from ten to thirty minutes. The dilution with water does not dissolve the precipitate, but shaking or mixing the liquid causes it to become invisible for a time, only to reappear upon standing some minutes. There is no danger of mistaking this precipitate for one caused by any added substance.

Banana ice cream yields a very slight stringy precipitate, not dissolved by the dilution prescribed, and looking exactly as if due to a *very slight* amount of gum tragacanth; but its amount is too small to indicate an addition of that substance. Of course starch is always present.

All that I have thus far stated relates to fresh, sweet ice cream; and with such there is no danger of error by the method of analysis described. But it was found that if samples of pure ice cream to which no thickener has been added are allowed to sour and remain at room temperature for several days before analysis—even no more than two days sometimes—there will in some cases develop a substance which in the test appears like some sort of gum—a substance precipitated by the alcohol and not dissolved either by the acid-alcohol or the water, added as directed in the method. The precipitate is entirely unlike that from tragacanth, being flocculent and not at all stringy. A large number of experiments with sweetened milks, allowed to sour for varying periods of time, have shown that the substance results from a viscous fermentation of the cane sugar, like that which sometimes occurs in cane and beet juices at sugar houses, and that it is probably a variety of dextran. Its properties agree fairly well with dextran, so far as these can be learned from books, excepting its specific rotary power. This we have not yet been able to fix definitely, since in determinations upon three different samples—prepared from sweetened milks and purified several times by precipitation with alcohol—it has ranged from 170 to 182 for [a]_D²⁰

—, on the ash-free substance. Values obtained on D

dextran of the sugar houses by various observers have varied even more, viz., from 195 to 230—a variation which C. A. Browne¹ tries to account for by suggest-

¹Browne, J. Amer. Chem. Soc. XXVIII (1906), 453. ing that dextran may have a variable composition due to different degrees of hydration.

Whether or not the substance we have found shall

prove to be dextran, it is important to note that it does not develop in all ice creams or sweetened milks that are allowed to sour, showing that its production is caused by a peculiar quality or content of some milks, probably certain germs also that sterilization by heat or antiseptics prevents its formation. Therefore, if a sample of ice cream to be examined for thickeners cannot be analyzed when fresh, it should be preserved with an antiseptic, to avoid possible error from this cause. One-half of a cubic centimeter of a 40 per cent solution of formaldehyde per 100 cc. of ice cream, is an efficient treatment.

It was also found that if an ice cream or a milk, sweetened or unsweetened, be allowed to sour for two to three weeks, or even one week in some instances in warm weather, there will be developed a substance which, in the picric acid test for gelatin, gives a precipitate closely resembling that produced by gelatin itself. This fact was observed by Mr. Herbert S. Bailey, and the substance,—“pseudo-gelatin” we call it for the present—will be further studied by him. The formation of this substance is prevented by the use of formaldehyde, so that error from this source also can be avoided.

Rennet, as thickener in ice cream, is best detected by observing its property of curdling sweet milk. Mix some of the fresh ice cream with twice its volume of sweet milk and keep at a temperature of 40 degrees C. for fifteen or twenty minutes, without stirring. A low grade ice cream need not be mixed with milk at all. If rennet is present a curd will form.

While hardly germane to my subject I wish to just mention the relation of the volume of ice cream to the weight. I have noticed a great difference in ice creams in this respect. A large gain in volume is effected partly by a high speed of the freezer, in order to “beat” the cream, and partly by the use of thickeners. The directions accompanying one commercial thickener on the market describe how to make a “40 quart freezer of ice cream,” by proper speeding of the freezer, from 20 to 22 quarts of milk and cream, 5 to 7 pounds of sugar and one ounce of the thickener. Whether thickeners are used or not, the *quantity* of ice cream sold for a stated price is second in importance only to the *quality*, and therefore in strict justice to the purchaser, this commodity should in my opinion be sold by weight rather than by volume or measure.

ANOTHER PURE FOOD CASE.

On the charge of selling misbranded food, Niels Peterson, a grocer with place of business at 316 West Broadway, was arrested on information issued from Justice John K. Cooper's court. The information, which was made out in Des Moines, is signed by H. R. Wright, pure food commissioner for the state of Iowa.

The complaint charges that on January 7 Peterson sold to J. C. Tate, representative of the pure food department of the state, some compound vanilla flavor, which was in fact, it is alleged, “composed of vanillin and coumarin, colored with caramel.” Vanillin is an aldehyde obtained from vanilla pods or from chemical process without using the pods and has, it is said, the characteristic flavor of vanilla. Coumarin is the essence of the tonka bean.

The case against Peterson will be heard at 9 o'clock on Thursday, February 20, the defendant having furnished a bond in the sum of \$100 for his appearance at that time.—Council Bluffs, Ia., Nonpareil.

THE NEW TENNESSEE FOOD LAW.

CHAPTER 297, ACTS OF 1907.

A bill to be entitled, "An act to prohibit the manufacture or sale of adulterated or misbranded food or drugs affecting the health of the people in the State of Tennessee, and to provide for the enforcement of the same."

WHEREAS, The Congress of the United States, on June 30, 1906, passed an act to prevent the manufacture, sale or transportation of adulterated or misbranded, or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating traffic therein; and

WHEREAS, Said law applies only to the manufacture of adulterated or misbranded foods or drugs in the Territories of the United States and the District of Columbia, and the interstate traffic in the same; and

WHEREAS, Under said law manufacturers of all adulterated foods and drugs are at liberty to make and sell same within any State, to the great detriment and danger of the people thereof;

Now, therefore, in order to supplement said Federal law, and to protect the people of this State from imposition and danger attending the use of all such adulterated and misbranded food and drugs;

SECTION 1. *Be it enacted by the General Assembly of the State of Tennessee*, That it shall be unlawful for any person to manufacture within this State any article of food or drugs, which is adulterated or misbranded within the meaning of this Act, or to sell or give away the same; and any person who shall violate the provisions of this Act, shall be deemed guilty of a misdemeanor, and for the first offense shall, upon conviction thereof, be fined not to exceed Five Hundred Dollars, or shall be sentenced to one year imprisonment in the penitentiary of the State, or both fine and imprisonment, in the discretion of the court; and for each subsequent offense, upon conviction thereof, shall be fined not more than One Thousand Dollars, or sentenced to not more than two years in said penitentiary, or both such fine and imprisonment, in the discretion of the court; and the grand juries of the several counties of this State shall have inquisitorial power over said offenses, and the judges of the several criminal courts and circuit courts, having criminal jurisdiction, shall especially charge this law to the grand juries of the several counties of the State.

SEC. 2. *Be it further enacted*, That the term "drug" as used in this Act, shall include all medicines and preparations recognized in the United States Pharmacopeia, or National Formulary, for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease of either man or other animals.

The term "food" as used herein, shall include all articles used for food, drink, confectionery or condiment, by man or other animals, whether simple, mixed or compound.

SEC. 3. *Be it further enacted*, That for the purpose of this Act, an article shall be deemed to be adulterated:

In case of drugs:

1. If when a drug is sold under or by a name

recognized in the United States Pharmacopeia, or National Formulary, it differs from the standard of strength, quality or purity, as determined by the test laid down in the United States Pharmacopeia or National Formulary, official at the time of investigation; Provided, that no drug defined in the United States Pharmacopeia or National Formulary, shall be deemed to be adulterated under this provision, if the standard of strength, quality or purity be plainly stated upon the bottle, box or other container thereof. Although the standard may differ from that determined by the test laid down in the United States Pharmacopeia or National Formulary.

2. If its strength or purity fall below the professed standard or quality under which it is sold.

In case of confectionary:

1. If it contain terra alba, barytes, talc, chrome yellow or other mineral substances, or poisonous color or flavor, or other ingredient deleterious or detrimental to health; or any vinous, malt or spirituous liquor, or compound or narcotic drug.

In case of food:

1. If any substance has been mixed and packed with it, so as to reduce or lower, or injuriously affect its quality or strength.

2. If any substance has been substituted wholly or in part for the article.

3. If any valuable constituent of the article has been wholly or in part abstracted.

4. If it be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed; Provided, that burned sugar, or any other coloring matter whatever, used in the manufacture of vinegar or cider, shall be deemed an adulteration.

5. If it contain any added poisonous, or other added deleterious ingredient, which may render such article injurious to health; Provided, that when in the preparation of food products for shipment, they are preserved by an external application, applied in such manner that the preservative is necessarily removed mechanically, or by maceration in water or otherwise, and directions for the removal of said preservative shall be printed on the covering or the package, the provisions of this Act shall be construed as applying only when said products are ready for consumption.

6. If it consist in whole or in part of a filthy, decomposed or putrid animal or vegetable substance, or any portion of animal unfit for food, whether manufactured or not; or if it is the product of a diseased animal, or one that has died otherwise than by slaughter.

SEC. 4. *Be it further enacted*, That the term "misbranded" as used herein, shall apply to all drugs or articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such article, or the ingredients or substances contained

therein, which shall be false or misleading in any particular; and to any food or drug product which is falsely branded as to the State, Territory or country in which it is manufactured or produced.

That, for the purpose of this Act, an article shall be deemed to be misbranded:

In case of drugs:

1. If it be an imitation of or offered for sale under the name of another article.

2. If the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package, or if the package fail to bear a statement on the label, of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate or acetanilide, or any derivative or preparation of any such substances contained therein; Provided, that no part of this section shall be construed as applying to the prescriptions of regularly licensed physicians, dentists and veterinary surgeons, when said prescriptions are filled or dispensed for the person for whom originally written; nor to such drugs as are regularly recognized in the United States Pharmacopeia and which are sold under the brand by which they are so recognized.

In case of food:

1. If it be an imitation of or offered for sale under the distinctive name of another article.

2. If it be labeled or branded so as to deceive or mislead the purchaser or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package, or if it fail to bear a statement on the label, of the quantity or proportion of any morphine, opium, cocaine, heroin, alpha or beta, eucaine chloroform, cannabis indica, chloral hydrate or acetanilide, or any other derivative or preparation of any such substances contained therein.

3. If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package.

4. If the package containing it or its label shall bear any statement, design or device, regarding the ingredients or the substance contained therein, which statement, design or device, shall be false or misleading in any particular; Provided, that an article of food which does not contain any added poisonous or deleterious ingredients, shall not be deemed to be adulterated or misbranded in the following cases:

1. In the cases of mixtures or compounds which may be now, or from time to time hereafter known as articles of food under their own distinctive names, and not an imitation of, or offered for sale, under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

2. In the case of articles labeled, branded or tagged so as to plainly indicate that they are compounds, imitations or blends, and the word, "compound," "imitation," or "blend," as the case may be, is plainly stated on the package in which it is offered for sale; Provided, that the term blend as used herein shall be construed to mean a mixture of like substances, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring and flavoring only; and Provided further, that nothing in this Act shall

be construed as requiring or compelling proprietors or manufacturers of proprietary foods which contain no unwholesome added ingredient, to disclose their trade formulas, except in so far as the provisions of this Act may require to secure freedom from adulteration or misbranding.

SEC. 5. *Be it further enacted*, That no dealer shall be prosecuted under the provisions of this Act, when he can establish a guaranty in accordance with the provisions of the National Pure Food and Drugs Act, June 30, 1906. or a guaranty, signed by the wholesaler, jobber, manufacturer, or other parties residing in this state from whom he purchases such articles, to the effect that same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sales of such articles to such dealer, and in such case said party or parties shall be amenable to the prosecutions, fines and other penalties which would attach, in due course, to the dealer under the provisions of this act.

SEC. 6. *Be it further enacted*, That the term "territory," as used in this act, shall include the insular possessions of the United States. The word "person," as used in this act, shall be construed to import the plural or singular, as the case demands, and shall include firms, corporations, companies, societies and associations. When construing and enforcing the provisions of this act, the act, omission or failure of any officer, agent or other person acting for, or employed by any corporation, company, society or association, within the scope of his employment or office, shall in every case be also deemed to be the act, omission or failure of such corporation, company, society or association, as well as that of the person. Provided, that nothing in this section shall apply to goods, wares and merchandise in the hands of the wholesaler or retailer, at the date of the passage of this act, when the date of receipt of said goods can be satisfactorily established by invoice or otherwise.

SEC. 7. *Be it further enacted*, That to more fully enforce the provisions of this act, there shall be appointed by the Governor, a person, who shall be a chemist of established reputation and ability, who shall be known as Pure Food and Drug Inspector, and who shall hold office for a term of two years from the 15th day of January of the year of his appointment. The salary of said inspector shall be Twenty-five hundred Dollars per annum, payable monthly, out of the treasury of the state, as are paid the salaries of other state officials.

SEC. 8. *Be it further enacted*, That said inspector shall establish and maintain an office and laboratory in the capitol or elsewhere in Nashville, and sublaboratories in other place or places as may be deemed advisable or necessary by the State Board of Health; and said laboratory or laboratories shall be equipped by said inspector for proper inspection and analysis of all food and drugs mentioned in this act; said office and laboratory to be established, equipped and conducted under the supervision of the State Board of Health. It shall be the duty of said inspector to keep himself informed as to the various food and drug products manufactured or sold in this state, and from time to time, inspect and analyze the same, and in case of any violation of this law, said State Board of Health or its duly authorized representative, shall act as prosecutor in the court having criminal jurisdiction of said offense. The sum of One Thousand Dollars, or as

much thereof as may be necessary, is hereby appropriated for the equipment of the office and laboratory or laboratories provided in this section.

SEC. 9. *Be it further enacted*, That said Pure Food and Drug Inspector shall be required to obtain through purchase, or otherwise, samples of all food and drugs manufactured or sold in this state, and inspect and analyze the same; and he shall keep a complete record in his office of all such inspections and analyses, together with all expenses attached thereto. He shall certify such expenses to the Comptroller of the state, and the same shall be paid as other expenses of the state are paid out of the treasury, but such expenses shall not exceed One Hundred Dollars for any one month during the year. Said inspector shall make such reports to the State Board of Health as they may from time to time require. He shall also make an annual report to the Governor, showing the expenses of the office, the number and character of inspections, and the results accomplished by said office.

SEC. 10. *Be it further enacted*, That all fines collected under the provisions of this act, shall be turned into the treasury of the state.

SEC. 11. *Be it further enacted*, That all laws or parts of laws in conflict with this act, be and the same are hereby repealed, and that this act shall take effect from and after January 1, 1908, the public welfare requiring it.

Passed April 4, 1907.

JOHN T. CUNNINGHAM,
Speaker of the House of Representatives.

E. G. TOLLETT,

Approved April 9, 1907. *Speaker of the Senate.*
MALCOLM R. PATTERSON,

Governor.

STATE OF TENNESSEE.

DEPARTMENT OF STATE.

I, John W. Morton, Secretary of the State of Tennessee, do certify that the annexed is a true copy of Chapter 297, being House Bill No. 141, known as the "Marr Pure Food and Drugs Act," of the Acts of the General Assembly of the State of Tennessee, 1907, passed April 4, 1907, and approved by the Governor April 9, 1907, the original of which is now of record at my office.

In testimony whereof I have hereunto subscribed my official signature; and, by order of the Governor, affixed the great Seal of the State of Tennessee, at the Department in the City of Nashville.

This 24th day of April, A. D. 1907.

(Signed) JOHN W. MORTON,
Secretary of State.

NATIONAL CANNERS' CONVENTION.

The Canners' Association closed a more than usually interesting convention in Cincinnati February 6. It was decided to hold the 1909 convention in Chicago, Ill.

The following officers were elected:

Charles S. Crary, Illinois, president.

L. A. Sears, Ohio, vice-president.

Members of the executive committee: W. R. Roach, Michigan; H. S. Arem, Maryland, and George G. Bailey, New York; Frank E. Gorrell, secretary.

OFFICERS IN ASSOCIATED ASSOCIATIONS.

The National Food Manufacturers' Association elected the following officers:

Louis Hersch, president.

Walter Williams, first vice-president.

T. J. Riordan, second vice-president.

Frank R. Meyer, third vice-president.

William H. Ritter, treasurer.

E. C. Johnson, secretary.

Executive committee: T. J. Carroll, Fred Field, E. O. Grosvenor, W. P. Anderson and H. H. Logan.

The Western Packers' Canned Goods Association held its annual meeting in the auditorium hall. The following officers were elected:

L. J. Resser, Onarga, Ill., president.

W. R. Roach, Hart, Mich., vice-president.

F. F. Wiley, secretary and treasurer.

Executive committee: S. F. Martin, Blair, Neb., and W. E. Ellis, Clinton, Ia.

The brokers elected the following on their official board for 1908:

Walter Frost, president.

E. C. Shriner, Baltimore, first vice-president.

Frank L. Deming, Chicago, second vice-president.

Frank A. Affin, New York, third vice-president.

John L. Flannery, Chicago, secretary.

H. C. Gilbert, St. Louis, treasurer.

Directors for one year: Joseph Durney, San Francisco, and H. Bruce, Pittsburg.

Directors for two years: H. M. Holt, Boston, and B. P. Boswell, New Orleans.

Directors for three years: W. Silver, Aberdeen, and C. S. Jones, Peoria.

"DIRTY TEA" BILL PASSED.

Senator Stone, after four years, succeeded in having passed by the senate the "dirty tea" bill. This bill is "to amend the laws relating to the importation of impure and unwholesome tea." Four years ago it was introduced by Francis Marion Cockrell, then a senator from Missouri. It was his last official act of any consequence. It remained on the calendar, bobbing above the calm surface of the senate occasionally only to be submerged again by the senatorial "I object." Senator Stone fell heir to it. At first he met the objection with calm and resignation. Day after day it came up as the calendar was read.

Senator Kean was an insistent objector. Later Senator Lodge became inquisitive. Last week he announced that he had called for information from an executive department regarding the bill. Still later he announced that he had not heard from the department.

"This bill has had rough sailing ever since it was proposed," suggested the senator from Missouri to Mr. Lodge when the latter objected on Monday. "I do hope the senator will allow it to pass."

When the bill came up January 29, Mr. Lodge explained that he was still without the desired information from the department, but he would interpose no further objection. There is a cloakroom story that Mr. Stone had said that no more business should be transacted until the tea bill passed.

The bill allows the importation under treasury regulations of tea dust and sweepings. It is primarily for the benefit of a firm of St. Louis medicine manufacturers who wanted to extract "theine" or "caffeine" from the prohibited tea refuse.

The bill has not been passed by the house. There may be dangers ahead there.

THE AMERICAN FOOD JOURNAL



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All reading and advertising matter to appear in THE AMERICAN FOOD JOURNAL must be received at this office on or before the 12th of the month.

WILBUR F. CANNON.

Wilbur F. Cannon, the recently appointed chief inspector of the Colorado Pure Food Department, whose likeness we present on the front cover, has the satisfaction of starting the crusade against adulterated food products in Colorado. For many years Colorado, recognizing the importance of the dairy industry to the material welfare of the state, maintained a strong dairy department. At times this was more or less dominated by political influences, the curse of Colorado, but under Mrs. Mary Wright, a practical cheese maker, and under Mr. Bishop the dairy industry materially advanced in that state, and the department under their direction was enabled to suppress the improper sale of oleomargarine and other butter substitutes.

However, the law was not broad enough to reach other sophistications, and the legislature of Colorado passed a law patterned after the National Food Law in many particulars, and placed the enforcement of it with the State Board of Health.

Mr. Cannon is the executive officer who will be responsible for the enforcement of the law.

Mr. Cannon was born in 1863, in New York City, and in 1874 emigrated to Colorado. He was educated in private schools, Jarvis College and the University of Colorado. For the last twenty-five years he has been engaged in the manufacture of flavoring extracts, retiring to devote his entire time to his present work. He has been a member of the Colorado House of Representatives for the past fifteen years, and it was through his constant attention that the Colorado Food Law was passed.

That Mr. Cannon is well posted on pure food and is acquainted with many of the pitfalls which beset the honest enforcement of food laws may be seen in his own words relative to the Colorado Food Law and the policy to be pursued in the carrying its provisions into effect:

"Investigation," he says, "has demonstrated that the Colorado law is most completely up-to-date. The most notable feature of this statement is found in its absolute conformity to the national law. Many other states which have been operating under their own local pure food laws for several years are now asking their respective legislatures to amend their laws so that they shall conform also to the federal act, and the Colorado law is being used as a basis in many of those states for their

desired legislation along these lines. Another feature that is extremely desirable in our law is the branch of the state government to which its enforcement has been intrusted. Our act places its enforcement in the hands of a non-political State Board of Health composed of solid, substantial, reputable physicians who are old residents of this state and factors in its civic life. This board is so composed that it cannot be changed with each state administration, but changes so slowly that in all probability no partisan state government can upset its arrangement as long as it conducts its affairs in the highly commendable way that it has in the past. This system must appeal to any intelligent man at a first glance to be vastly preferable to the election or appointment of a pure food commission who would necessarily be taken from the ranks of ward politicians and who would be changed as the administration changes, or by the political conditions as they might exist with each biennial period. The board has clothed its secretary, Dr. Hugh L. Taylor, with the general government of its pure food division by electing him as executive officer. The board also has full power to appoint or discharge its inspectors at will. This must appeal to you as a most excellent method of avoiding the scandals and insinuations which creep into all efforts of this character to enforce pure food laws, and I am pleased to state that up to this moment there has not been the slightest improper criticism or insinuation against any officer of this department, and you can all rest assured that the administration of this law, while in the hands of the present board of health and its officers, is going to be absolutely on the square. Its provisions are going to be enforced to the letter, but in a conservative, level-headed and business-like way."

MANN'S PROPOSED AMENDMENT.

Two bills have been introduced in the National House of Representatives by Congressman Mann, of Chicago, for the purpose of amending the National Food and Drugs Act.

One of these bills aims to annul a regulation of the Secretary of Agriculture, providing for the words "Guaranteed under the Pure Food and Drug Act" and to substitute therefore the words "U. S. Standard," and the other bill creates a new board and the necessary authority to fix a U. S. standard.

This Journal had the temerity to say when the food law was under discussion that it was not all it should be, and we were abused for our presumption to question such a perfect work of lobby and jingo legislation. And while we may now agree with Messrs. Mann, Heyburn, Hemingway, Gallinger, Lorimer and others who have offered amendments to this perfect law, that there is not only something the matter with the law but with the method of its enforcement, we cannot see that Representative Mann's bills will help matters much and might still farther demoralize trade in this country.

Secretary Wilson, in perhaps the most vitriolic words he ever uttered, seared and scorified the manufacturers who in their advertising made it appear that the United States guaranteed the quality and purity of their goods. THE AMERICAN FOOD JOURNAL also gave a few hard knocks to these prevaricators with the result that at least one alum baking powder manufacturer was compelled to change the character of his advertising in the greatest daily

newspaper in Chicago. Nevertheless, it must be admitted that the form of the guarantee adopted by the Government—"Guaranteed Under the Food and Drug Act" is misleading to the consumer. It carries the idea that the guarantee is that of the Government rather than the manufacturer. This is probably what the authors of the regulation wanted to do, and of course, nothing could have suited the manufacturers better than to have it appear that the Government endorsed and guaranteed their products. So we have a government guarantee of "Crystal Flake Gelatine," "Soluble Lemon Oil," and other dilutants and adulterants, also "It's a Kure," and "Elimino" and other panacea for the ills which vex us. The fact, however, must not be lost sight of that the manufacturers' guarantee was recommended in this form and if the manufacturers had not willingly complied with it they would have been forced, both by conditions of trade and by the Government to do so. Every package of manufactured foods and medicines was changed to meet the new conditions at enormous expense. A change in form now would mean another large expenditure which the manufacturers of this country at present are hardly able to stand, nor can the people stand the additional burden. If a change in the form of guarantee is necessary, and we concede it would be very desirable, it should be changed as little as possible, say by introducing the word "manufacture" or the name of the manufacturer in the guarantee so that it would read "Guaranteed by the manufacturer under the Pure Food and Drugs Act," or "Guaranteed by Swift & Co., to comply with the National Food and Drugs Act."

The change in form of guarantee should be gradually brought about and the time for its compulsory use set at such a future date as would enable the manufacturers to dispose of all packages, cartons and labels now on hand and printed according to official stipulations.

No new law is necessary to inaugurate this reform, nor is it necessary to repeal an old one. The Food and Drugs Act simply provided that a guarantee from the manufacturer shall furnish immunity to the retailer. It did not concern itself about the form of guarantee nor even with the fact of guarantee, except as the possession of one would determine who would be held responsible, the manufacturer or the dealer. The form of guarantee is one of the minor matters of administration, designedly left to three members of the president's cabinet. If the present form is not satisfactory, it can be amended by the parties which recommended it. If not acceptable to future cabinet officers, it can be changed. Of course no men having the business interests of the country at heart would wish to precipitate a financial disaster unless conditions absolutely demanded the sacrifice.

The standards proposition in Representative Mann's bill is nearly a repetition of his bill of two years ago. This clause was so contested in the senate at that time that all reference to standards had to be dropped from the conference bill. The food standards as set by the theorists under their brief authority have been the cause of much bickering and are largely responsible for the unpopularity and the failure of the National Food Law up to date.

ENFORCEMENT OF THE NATIONAL FOOD AND DRUGS ACT.

This month has witnessed the first real activity under the National Food and Drugs Act. Cases have been brought or prepared for action in Washington, in St. Louis, in Indianapolis, and New Orleans on whisky, patent medicine, flour and wine, alleged to be adulterated or misbranded. We presume in all these cases the manufacturers have been given, or offered, a hearing as provided by law. One would naturally suppose that the most flagrant and inexcusable cases of food adulteration would receive the attention of the officials and we may examine these cases closely to see if what the expenditure of millions of dollars in direct expenditure and hundreds of millions in indirect cost and in loss of trade has brought the country.

In the first instance, a man is prosecuted for selling as "blended whisky," an article generally known as whisky and which is admittedly purer than the article recently introduced and popularized in the United States under that name, and although the food law expressly provided that such an article should be called a blend, and this view of the case was taken by Congress and the newspapers of the country. This case is simply brought to try to force an hypothesis as to the virtues of a particular variety of whisky on the country.

The second case is of the same character as the first. A bold bad man in St. Louis puts up a remedy and calls it "Cuforhedake Brane Fude." We concede that on the evidence of the name alone the manufacturer should be sent to an asylum for the feeble minded or to President Roosevelt's cabinet as Secretary of Spelling Reform. However, the U. S. authorities think the man is criminally liable. They hold that the name will give the impression that the article is a cure for headache, whereas they deny that it is a "cure," and therefore falsely labeled under the law.

Although Senator Heyburn would have desired the food bill he introduced to be broad enough to cover misstatements as to the therapeutic virtues and physiological effects of drugs and proprietary remedies, his colleagues could not see it that way and it was agreed that the bill as passed by Congress did not give such authority. Indeed, would anyone be omniscient enough to wisely enforce a law of that character?

Dr. Wiley, however, has insisted that the law gives him the power to decide whether a particular article is a cure for a particular disease. This case will test the validity of his contention.

The third case is most heinous. Some flour labeled hard winter wheat flour is alleged to contain some flour made from Durum wheat, a variety of wheat imported and introduced at great expense by the Agriculture Department, and which is expected to redeem the desert sections of our country. This variety of wheat is somewhat inferior to hard winter wheat for flour, mainly, although not entirely, on account of its color—not yielding as white a flour as bleached winter wheat. If the facts are proven in this case, a conviction ought to be obtained, although its effect on the durum wheat industry will not be favorable, and it is doubtful whether the public or the baker will be in the least benefited. On general principles, however, no misstatement, however, unimportant, should be countenanced on the label of food products, but a search with a fine toothed comb, over the United States for two years ought to have dis-

covered more flagrant adulteration than the partial substitution of one variety of a species for another variety.

Of the fourth case we have not sufficient facts to warrant discussion. If the sample is a manufactured wine in interstate commerce, the case ought to be good. It is brought, also, in a State which, up to recently, has had no food law. If it is pure juice of the grape with the simple addition of sugar to make up for deficiency of sunshine, as is often necessary in Ohio and New York, the department might be in better business developing the chemical end of our agricultural industries.

"IN THE SHADE OF THE OLD APPLE TREE."

The full page cartoon illustrates the materials from which cider vinegar is commonly made. Of course, not all cider vinegar is made from rotten apples. Some of it, particularly that made for home use, is made from sound fruit, although rarely from fruit which has a ready market for other purposes. While our cartoon does not illustrate the best cider vinegar, likewise it does not typify the worst. Perhaps the poorest grades of cider vinegar are made from the cores, peelings and apple refuse from South Water street, Chicago, and similar fruit markets.

Apple or cider vinegar when made from sound fruit is a valuable food adjunct and possesses a flavor and boquet which is by many justly esteemed. The impure and undoubtedly unwholesome apple vinegar retains, to a degree at least, the genuine apple flavor.

There has been a tendency on the part of several state food commissioners to rule that only cider vinegar is entitled to the name vinegar and thus to force the public to invest in this class of goods. Other commissioners object to the coloring of distilled vinegar, even though it is sold honestly to the consumer as Colored Distilled Vinegar. We have in other issues expressed our belief that this is carrying the enforcement of the food law too far into the pocket-book of the consumer, particularly where only a few exclusive horticulturists get the benefit; whereas, the great bulk of the farmers are as much interested in their corn crop from which pure distilled vinegar is made as they are in their rotten apple crop, which goes into "vinegar."

DOUBT AS TO WHISKY.

United States Attorney Baker has filed a bill against the James Clark Distilling Company, and the United States marshal has seized thirty-eight barrels of whisky, valued at \$4,000, and has placed the barrels in storage to await the court's decision. The suit is to test the decision of Attorney General Bonaparte as to what constitutes a whisky under the U. S. Foods and Drugs Act.

The United States attorney alleges the whisky is misbranded and therefore violates the federal pure food law. He contends that the whisky is made up of neutral spirits and has been found to have been colored and flavored. The company maintains that the whisky is a blend.

Warwick M. Hough of St. Louis, attorney for the National Wholesale Liquor Dealers' Association, declares the case will be fought to the United States Supreme Court if necessary.

Attorney General Bonaparte's opinion is, in substance, that nothing is entitled to be called whisky

unless it is a distilled spirit from grain which contains all the so-called secondary or cogeneric products—in other words, fusel oil.

Mr. Hough contends that the purest whisky is distilled spirits from grain, out of which most of the fusel oil has been removed by process of rectification.

The question at issue, according to Attorney Hough, is whether a distilled spirit from grain, out of which most of the fusel oil has been removed, is a like substance to a distilled spirit from grain out of which none of the fusel oil has been removed. If these two distilled spirits from grain are like substances the mixture is entitled to be called a blend under the pure food law, which defines a blend to be a mixture of like substances, not excluding harmless coloring and flavoring matters.

"The whisky seized is the kind of blend that constitutes 95 per cent of the whisky consumed in this country. It is a surprising thing," said Mr. Hough, "that the Department of Justice should bring an action on a label that appears on one end of a barrel, stating that it is whisky, while on the other end of the barrel appears the official notation of the internal revenue bureau, also stating that it is whisky, and taxing it as such."

OLEO WINS TEST CASE.

According to the decision of the Supreme court, printed elsewhere in this issue, the Wisconsin Dairy and Food Commission made a mistake in interpreting a legislative restriction in the food law as a further extension of authority to prohibit the selling of oleomargarine. In this case it was conceded by the department that oleomargarine is a pure and healthful product or at least the particular product on which the case was started. The supreme court said the lower court erred in admitting the testimony of Ex-Gov. W. D. Hoard and J. G. Moore, as to the color of butter on Wisconsin markets, and also as to certain instructions to the jury relative to the consideration of testimony.

Although the decision in this case is in favor of the oleomargarine manufacturers, it must not be presumed that the law is held invalid or that convictions can not be obtained under it. The law is as strong as it ever was and there is scarcely any question of the department being able to prevent the coloring of oleomargarine to imitate colored butter. The decision simply lays down a judicial interpretation of the law which interpretation did not make the facts in this particular case an infraction of the law.

DRAWN POULTRY BILL.

Assemblyman Burhyte of New York has thrown consternation into the camp of the poultry dealers again by introducing the Drawn Poultry Bill, which was defeated at the last session of the legislature. It is claimed by the supporters of this measure that poultry and game which has been killed and kept undrawn in cold storage is unfit for food. The poultry men claim that bacteriological evidence proves that the edible portions of healthy, dead, undrawn poultry and game do not contain any bacteria, toxins or ptomaines that are harmful when eaten by man so long as such poultry is kept free from putrefaction; that poultry that goes into cold storage in good bacterial condition comes out in exactly the same condition that it went in so long as the temperature of the poultry is kept

low enough to prevent the growth of putrefactive bacteria, and finally that the longer poultry remains frozen the less bacteria it contains.

FOOD STANDARDS COMMITTEE MEETING.

A meeting of the Joint Committee on Food Standards, representing the Association of Official Agricultural Chemists and the Association of State and National Food and Dairy Departments, was held at the Auditorium Annex, Chicago, January 30 to February 5.

Standards for malt liquors and various sub-classes of manufactured meats were considered; also a hearing given the ice cream interests.

All papers and arguments presented were held under advisement.

TEXAS SHORT OF FUNDS.

Dr. J. S. Abbott, Pure Food Commissioner of Texas, is fearful that the appropriation of \$5,000 allowed by the legislature for the administration of his office will not be adequate and that he will have to close up shop after the first year. He has already dropped one assistant, but will have to economize still closer if he is to draw any salary himself the second year.

NEW TENNESSEE FOOD LAW.

Dr. Lucius P. Brown of Lucius P. Brown & Co., analytical and consulting chemists, of Nashville, Tenn., has been appointed Pure Food Inspector for Tennessee by Gov. M. R. Patterson. In getting the machinery of the law in operation he asks the co-operation of the AMERICAN FOOD JOURNAL.

PROF. IRA REMSEN FOR CHAIRMAN.

It has been said that Prof. Ira Remsen of Johns Hopkins University has been selected to head the board of five scientists who are to form the consulting committee on the enforcement of the foods and drugs act. In the field of university men a better selection could not have been made.

MISBRANDED MAPLE SYRUP.

Sugar producers in Logan county, Ohio, are complaining that maple sugar canned in Chicago is labeled as being put up in Logan county, when in fact it never saw Logan county. This is an odious and obvious violation of the National Food Law beyond the jurisdiction of the State and the authorities should get busy.

IOWA LAW UPHELD.

Commissioner Wright of Iowa, won his test case in the lower court against N. K. Fairbanks. The case involves the construction of the Iowa law regarding labeling where the Iowa law is in conflict with the National law.

Judge Roe gave the decision and notice of appeal was immediately given. The case will undoubtedly be carried to the Supreme court.

Owing to our full report of the Corn Syrup Controversy we were compelled to omit our Directory of Food Control Officials, which we will publish fully corrected in our March issue.

THE MICHIGAN DECISION IN THE SAUSAGE CASE.

We regret that an error in the heading of the decision of Judge Wiest in the Michigan sausage case may have misled many of our readers, as it certainly did several of our exchanges. The decision was not a decision of the Supreme Court nor did it involve the main question at issue. The facts of the case are these:

Armour & Company, through their legal department, filed a bill in equity before Judge Wiest to determine whether or not sausage, as now manufactured, was an adulterated product under the Michigan laws. At the same time they secured an injunction restraining the food commissioner and his deputies from condemning sausages so made by them, and from intimidating the trade by threats of arrest, etc.

To all intents there were two cases pending—one the injunction suit, the other the suit on its merits. It was only the injunction which was dissolved by Judge Wiest in the decision published last month. The hearing on the merits of the case will come up later, and it is now where it always has been in the Chancery Court of the county of Ingham, state of Michigan, before Judge Henry Wiest. Whichever contention is upheld in this court the probabilities are that the case will be appealed to the Supreme Court.

OYSTER INDUSTRY IN TROUBLE.

The Oyster industry is in a bad way. The demand has fallen off greatly and the prices are exceedingly unsatisfactory to the oystermen. Gen. William Albert Jones, of the Corp of Engineers, U. S. A., attributes this depression of the oyster industry to the following causes:

First—The financial stringency.

Second—The high price to the consumer.

Third—the unjust aspersions cast upon the ordinary shucked oyster of commerce, by the agents of a patent carrier company, and also by the United States Agricultural Department.

Fourth—The effect of the United States Pure Food law in arousing the attention of consumers to the fact that not only shucked oysters, but those in the shell quite as much, are in many cases treated with polluted water—first, from the sewage of cities; second, from streams that run through thickly settled districts, and, third, from municipal waterworks.

Gen. Jones affirms that the oysters produced in Chesapeake bay at least, are pure and wholesome.

STATE VETERINARIAN UNDER CHARGES.

The Colorado State Veterinary Association has appointed Dr. Culver and Dr. Newsom, of the State Agricultural College, to investigate charges brought by State Dairy Commissioner Bishop against Dr. S. Bock, a veterinary surgeon of Denver. The charge is that Dr. Bock tested forty-two cows belonging to Frank W. Graham of Denver, declared twenty-one affected with tuberculosis, purchased them for \$20 a head, took them to Castle Rock, placed them with a farmer named Hollie, with the understanding that he, Bock, was to have half the proceeds and increase, and that from the dairy thus established, milk was shipped directly into Denver.

The Pure Food Show billed for Sandusky, Ohio, has been called off. If sufficient encouragement is given the show may be held next fall.

FOOD NOTES

Wood Food Company has been incorporated, with \$10,000 capital, in Sullivan county. This must be some new breakfast food with a truthful label.

* * *

Five thousand seven hundred and twenty-five rabbits, weighing 17,175 pounds, were condemned in St. Louis in January, last year, according to the report of Meat Inspector Mulhall.

* * *

The canners in their recent convention in Cincinnati, declared in favor of the words "Guaranteed Under the Food and Drugs Act, June 30, 1906" on the label of canned goods.

* * *

Libby, McNeil & Libby, of Chicago, one of the largest manufacturers of food products in the world, are to erect a new factory in Des Moines, Ia., at an estimated expenditure of \$30,000.

* * *

The State Pure Food Inspector at Warsaw has forbidden the people there to stick their fingers into any roasts and steaks which they may cook to see if the meats are done.—Ft. Wayne, Ind., News.

* * *

Indictments are being returned all over Iowa for violations of the Food Law. The most common offense is the illegal sale of oleomargarine. Thirteen grocers were recently arrested in Council Bluffs and almost as many in Iowa City and Waterloo.

* * *

One hundred and sixteen gallons of Western Reserve Blended Ohio Maple Syrup, in possession of Van Westenburger & Erb, Grand Rapids, Mich., has been seized by United States inspectors and held for penalty.

* * *

The assistants to the Indiana Food Commissioner express considerable surprise and chagrin over the failure to convict three druggists in Columbus, Ind., of selling illegal drugs. The court held there was a reasonable doubt in its mind as to the guilt of the accused.

* * *

Senator Newberry, the author of the Iowa Food law, is undergoing a minor surgical operation in Dubuque. Last summer he was bitten by a rattle snake and nearly lost his life as a result of the poison. This unfortunate occurrence probably aggravated the difficulty necessitating the surgeon's knife. We hope for a speedy and complete recovery.

* * *

A bill has been introduced in the Oklahoma Legislature by Milton Bryan to regulate the sale of milk and drugs. The Professor of Chemistry at the State University is designated official chemist and the State Board of Health is to enforce the provisions of the act. A standard for milk is incorporated in the act and it carries an appropriation of \$10,000 for its enforcement.

* * *

Mr. F. C. Newbouny in the Philadelphia Ledger denies that there is "little genuine black pepper," as

stated in that paper by members of the Philadelphia College of Pharmacy. He takes the position that no reputable manufacturer would adulterate pepper and if he did would soon scrape an unpleasant acquaintance with the State Pure Food Inspector. If other manufacturers would take the trouble to label the food canards so commonly published to the detriment of the country's welfare the food manufacturer might continue in business and retain a small title to respectability.

* * *

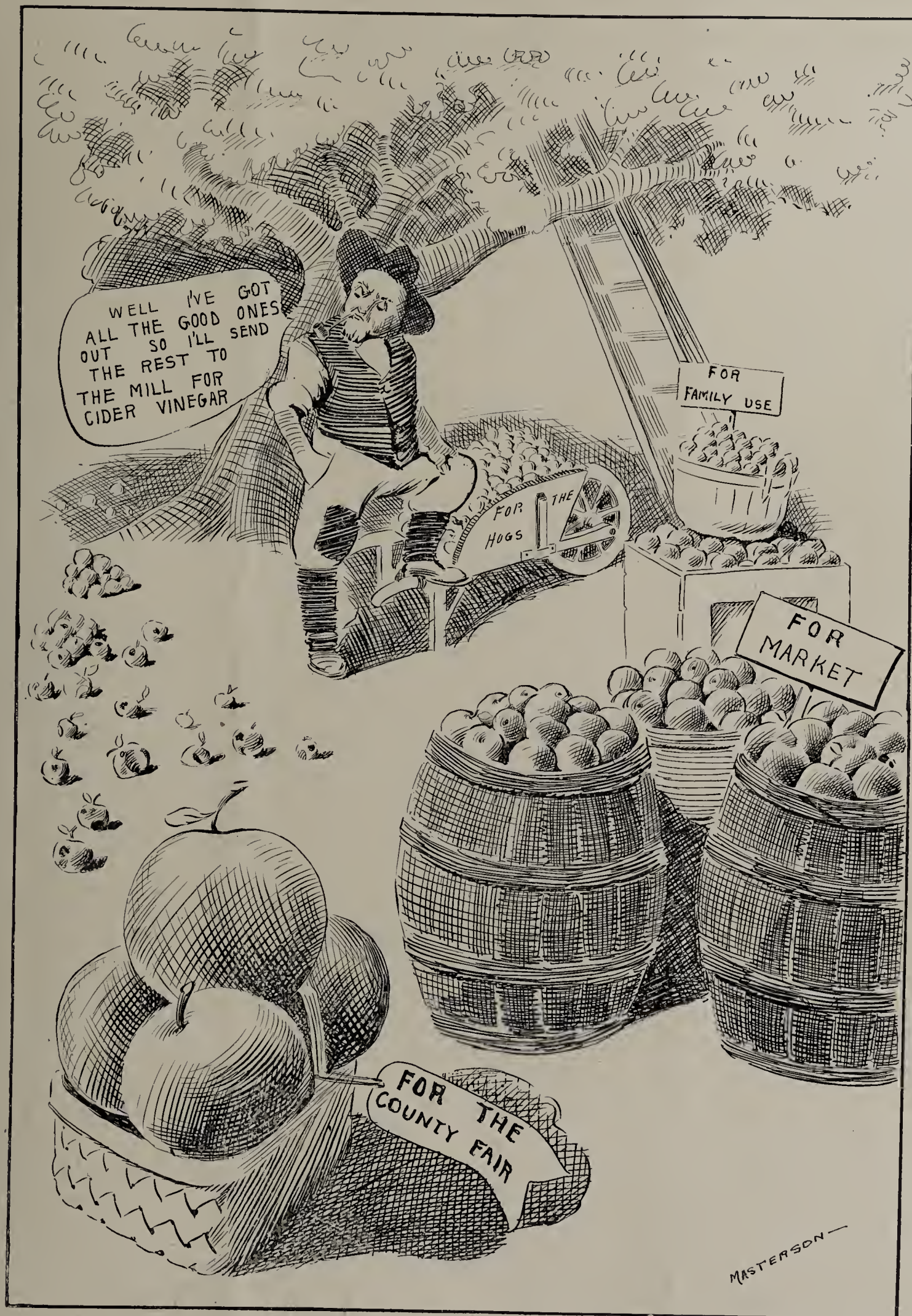
It is reported that a carload of flour with the seal still intact has been seized at Richmond, Ind., by order of the Secretary of Agriculture acting under authority of the Food and Drugs Act. It is alleged that the sacks of flour were labeled as having been manufactured from the finest selected hard spring wheat when in fact the flour contains as one of its ingredients Durum flour made from Durum wheat. The flour in question was shipped from Minnesota to Indiana. This appears to be the first bona fide case to test the virtue of the Food Law passed almost two years ago.

* * *

A new food and drugs bill has been introduced in the Maryland legislature by Dr. Martin L. Jarrett. It provides a penalty for the adulteration of food and defines adulteration and misbranding, which definitions of adulteration and misbranding follow faithfully the National Food and Drugs Act. It provides for the appointment by the Governor of a pure food commissioner at a salary of \$2,500 a year and traveling expenses. It creates a bureau of pure food and drugs, with power to appoint as many assistant commissioners as it may deem necessary at \$4 a day while actually engaged in work. It provides also that the chemical analysis shall be made by the Chemical Department of the Maryland Agricultural College, compensation to be made in the annual appropriation of the state for the support of the institution. It provides further for an appropriation of \$10,000 to carry out the provisions of the act.

* * *

Fifteen thousand dollars' worth of wine has been seized in New Orleans by the U. S. Food Bureau on the ground that it is adulterated. It is declared that an analysis of it showed that it contained saccharine, coloring matter, glucose and "benzoid" soda. Samples have been sent to Washington to confirm the local analyses. We are a little in doubt as to just what is meant in the list of ingredients mentioned as natural wine might contain all the ingredients except "benzoid" soda, which undoubtedly refers to sodium benzoate. By the way, isn't there a clause in the U. S. law prohibiting the publishing of analyses until manufacturers have an opportunity to be heard and even until convictions are had in the courts. Such is our understanding of the law, but it seems that the law is not very important in the matter of regulating food. It is largely done by edict.



IN THE SHADE OF THE OLD APPLE TREE.

THE FRENCH WINE INDUSTRY.

BY L. VAN ES, PROFESSOR NORTH DAKOTA AGRICULTURAL COLLEGE.

In the October number of "Lectures pour tous," a popular French magazine, the wine industry of France in connection with the crisis in the southern wine regions is discussed. The writer reviews the various causes leading to the present depression in the wine market and in pointing out the part played by fraud and adulterations writes as follows:

"Where does this depression come? Is it simply because there is too much wine on the market, more wine than France will or can drink? Without doubt there is too much wine on the market, as the people drink their part and yet there is left over. However, does it follow that the vines produce too much wine? There is overproduction in the vaults. But is there overproduction in the vineyards? That would be evident if it were certain that the wine in the cellars actually came from the vines; but this mass of wine, which is offered by the trade, does it all come from the vineyards? There is the question!

Formerly, before the phylloxera, that is to say before 1876, France produced more wine than now and it did not remain in the cellars. Now, the population of France has increased, the yield has decreased; habits of comfort and of a certain luxury have become established among the mass of the people. Must we believe that the thirty millions of French people, taken as a whole, the workmen, the peasants, drink less wine than formerly? That would be a mistake. Without doubt, modern medicine by its advice has reduced the use of wine, but that is the use of fine wines, which suffer least from the depression in prices and by the richer classes, consequently the least numerous ones. The number of water-drinkers in evening dress or tennis suit, those who in the restaurants are designated as ducks, is largely balanced by the drinkers in overalls, blouse and shirt-sleeves. The people drink as much and more wine than ever before.

That is shown by figures. In 1906 the wine offered for sale in France, the wine taxed by the government, amounted to forty-seven millions of hectoliters. Never, even in the most prosperous times, has more wine been sold. Besides, all is not put on the market. The wine producers themselves drink wine; sometimes even they are their best customers and this wine drunk at home and which is not taxed because it does not leave the premises of the proprietor amounts to twelve or thirteen million hectoliters per year. Added to the forty-seven million hectoliters of dutiable wine, this makes about sixty millions of hectoliters, which have been drunk by the French in the year 1906.

There are also the wines coming in from the outside, but this importation is fully balanced by exportation to foreign countries, by shrinkage and by wine worked into brandy.

Thus we see the French in 1906 drinking sixty million hectoliters of wine. Where do they get it? The yield of 1906 did not bring more than 53 million hectoliters. From 60 subtract 53, there remains 7. That is a difference of 7 millions of hectoliters. Whence do the drinkers get those seven millions of hectoliters of fruit which our good mother, the Vine, ignores? To this question, the South answers with one voice, "From fraud."

The thousand and one ways to make wine without grapes. To be sure, fraud is not a great novelty; but modern science has given it new weapons, ingenious and nearly invisible.

To make wine without grapes is mere child's play, a great deal less difficult than diabolio. At every attempt one wins. It is necessary to be close to good water, and get some sugar at the grocer's. The water costs nothing; the sugar, since the removal of the duty in 1903, costs little; one furnished the liquid, the other the alcohol, at a rate of 1° per hectoliter of liquid for every 1,700 grains of sugar. All this is poured on the skins and seeds, which already have produced wine. A little tartaric acid is added to give it the tart taste, a little logwood to give it color, yeast to make it ferment and see there something, which can pass for wine in perverted throats and in palates without delicacy on the counters of the (bistros) shops at 8 or 9 francs per hectoliter.

When the wine, the real natural wine of the South, of which the sun has supplied the alcohol, of which the plant has furnished the color, and of which the fruit has furnished the taste, presents itself at the door of (bistro) the shop, the fraudulent wine says:

"Too late! The place is taken. You are overproduced. You are too much. Go on!"

Such a kitchen has the odd name of "vintage." It should be really called "devinage," as not only in this manner no wine is made, but the little natural wine, in which one deals, is spoiled. It has actually been seen that 275 hectoliters of wine at a fine color were made with 175 hectoliters of wine and 100 hectoliters of water.

An expert chemist says this of the wines which were submitted to him by the courts:

"Those wines are fabricated by causing sugar water to be fermented on exhausted skins and seeds, often on dried skins. The inversion of the sugar and the acidification of the wine are most frequently obtained by the aid of sulphuric and tartaric acid; sometimes large amounts of sulphuric acid can be shown. To obtain the dry extract, the most strange additions have been devised; tomatoes, beets, tannin, etc.

For color, there is added to this extraordinary mixture, dock, indigo, lithmus or alkanet, privet, alderberry or red beets.—The N. D. Farmer.

WINE GROWERS INDIGNANT.

Domestic producers of champagnes and other wines are much disturbed at the concessions made by President Roosevelt in the recently proclaimed reciprocal agreement with France.

Under the terms of the convention, the United States concedes a 20 per cent reduction in duties on champagnes and sparkling wines imported into this country. In speaking of the new trade arrangement, Edward R. Emerson, president of the Brotherhood Wine Co., and also president of the American Wine Growers' Association, said to the "New York Commercial":

"This abatement of duties on champagnes and sparkling wines is entirely without warrant, especially when the fact is taken into account that the production of wines in America is, comparatively speaking, a young industry. The reduction on French champagnes actually amounts to 25 per cent and puts the domestic producers under an unjust disadvantage with the foreign makers and handlers.

"Why this favor should have been extended to foreigners, our association is at loss to understand. American wines are growing in popularity and it is a mistake to handicap the domestic industry with European competition."

60TH CONGRESS
1ST SESSION.

H. R. 12675.

IN THE HOUSE OF REPRESENTATIVES.

JANUARY 8, 1908.

MR. MANN introduced the following bill; which was referred to the committee on Interstate and Foreign Commerce and ordered to be printed.

A BILL

Supplemental to the Food and Drugs Act, June thirtieth, nineteen hundred and six.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever hereafter the Secretary of Agriculture shall have made public any standards of foods and drugs which he may have fixed and determined, it shall be lawful for foods and drugs complying in all respects with the standards so fixed and determined by the Secretary of Agriculture to bear upon the label, together with the name of the article, the inscription "United States standard;" but such inscription or words of similar import shall not be used in any way as descriptive of any article of food or drug which does not comply in all respects with the standard so fixed and determined under penalty of being deemed misbranded under the provisions of the Act entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes," approved June thirtieth, nineteen hundred and six, which Act is herein and shall be here-

after known, designated, and described as "The food and drugs Act, June thirtieth, nineteen hundred and six."

Sec. 2. That it shall be unlawful to place on any package or article of food or drug any label printed after the passage of this Act bearing the inscription "Guaranteed under the food and drugs Act, June thirtieth, nineteen hundred and six," or words of similar import, unless such label further shows that the guaranty is by the manufacturer or dealer in substantially the following form:

"Guaranteed by the manufacturer to comply with the food and drugs Act, June thirtieth, nineteen hundred and six," or "Guaranteed by us to comply with the food and drugs Act, June thirtieth, nineteen hundred and six,"

(Printed or written signature.)

and unless said inscription further complies with the rules and regulations provided for in the food and drugs Act, June thirtieth, nineteen hundred and six.

Sec. 3. That this Act shall be deemed and construed as supplemental to the food and drugs Act, June thirtieth, nineteen hundred and six, and the definitions in that Act shall apply to the terms used in this Act.

60TH CONGRESS
1ST SESSION

H. R. 13460.

IN THE HOUSE OF REPRESENTATIVES.

JANUARY 13, 1908.

MR. MANN introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed.

A BILL

Supplemental to the Food and Drugs Act, June thirtieth, nineteen hundred and six.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That for the information of the public the Secretary of Agriculture may publish determined standards of foods and drugs when advisable, and to aid him in reaching determination in such matters he is hereby authorized to call upon the committee on food standards of the Association of Official Agriculture Chemists and the committee of standards of the Association of State Dairy and Food Departments and such other experts as may be deemed necessary, and upon request made to the Secretary of Agri-

culture he may appoint a board of not less than five members to take hearings and make recommendations as to the standards of any particular class of food or drug products, which board shall meet at the city of Washington or elsewhere at the call of the Secretary of Agriculture and pass upon such questions after proper notice and hearing. The compensation of the members of such board shall be fixed by the Secretary of Agriculture.

Foods and drugs complying with the determined standards so published by the Secretary of Agriculture may bear upon the label, together with the name of the article, the inscription "United States standard," but such inscription or words of similar import shall not be used in any way as descriptive of any article

of food or drug which does not comply with the standard so published under penalty of being deemed misbranded under the provisions of the Act entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes," approved June thirtieth, nineteen hundred and six, which Act shall herein and hereafter be known, designated, and described as the food and drugs Act, June thirtieth, nineteen hundred and six.

Sec. 2. That no label shall be placed upon any article of food or drug, or the package containing the same, purporting to show that such article is guaranteed under the food and drugs Act, June thirtieth, nineteen hundred and six, under penalty of being deemed misbranded under the provisions of that Act, but it shall not be a violation of this provision to label goods as guaranteed by the maker thereof to comply with the provisions of the said food and drugs Act under such regulations as may be prescribed by the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor, in accordance with the provisions of section three of the said food and drugs Act.

CROP REPORT.

The Crop Reporting Board of the Bureau of Statistics of the Department of Agriculture finds, from the reports of the correspondents and agents of the Bureau, that the numbers and values of farm animals on farms and ranges in the United States on January 1, 1908, were as follows:

Farm Animals.	Per cent compared with Jan. 1, 1907.	Numbers.	Average price per head.	Total value.
Horses	101.2	19,992,000	\$ 93.41	\$1,867,530,000
Mules	101.4	3,869,000	107.76	416,939,000
Milch cows....	101.1	21,194,000	30.67	650,057,000
Other cattle...	97.1	50,073,000	16.89	845,938,000
Sheep	102.6	54,631,000	3.88	211,736,000
Swine	102.4	56,084,000	6.05	339,030,000

Compared with January 1, 1907, the following changes are indicated: In numbers, horses have increased 245,000, mules increased 52,000, milch cows increased 226,000, other cattle decreased 1,493,000, sheep increased 1,391,000, swine increased 1,290,000.

In average value per head, horses decreased \$0.10, mules decreased \$4.40, milch cows decreased \$0.33, other cattle decreased \$0.21, sheep increased \$0.04, swine decreased \$1.57.

In total value, horses increased \$20,952,000, mules decreased \$11,125,000, milch cows increased \$4,560,000, other cattle decreased \$35,619,000, sheep increased \$7,526,000, swine decreased \$78,761,000.

The total value of all animals enumerated above on January 1, 1908, was \$4,331,230,000, as compared with \$4,423,698,000 on January 1, 1907, a decrease of \$92,468,000, or 2.1 per cent.

The numbers of farm animals, as stated in the above table, represented, as nearly as ascertainable without an enumeration, the actual number of each specified class on farms and ranges on January 1. The figures are the results of a very careful investigation by the agents and correspondents of the Bureau, who used all available means to secure accurate information.

The details by states will be published in the February number of the Crop Reporter.

DECEASED MEAT CONDEMNED IN ELGIN, ILL.

Inspectors Hoey & Kennecott of the Illinois Pure Food Commission discovered, condemned and destroyed a badly diseased carcass of a cow which had been killed for food purposes.

The cow had been purchased by Wolf & Thies, butchers, of Elgin, Ill., from Gus Frederickson, a tenant on the Guin farm, four miles south of Elgin. The cow, according to the farmer, was not in good health on the day of sale, but nevertheless it was killed on the farm under the tree shown in the illustration.



"KEROSENING" THE CARCASS.

After slaughter the butchers also were in doubt as to the wholesomeness of the beef and local veterinarians were asked to examine the carcass. They stated that they were unable to detect anything wrong with the animal, but the state inspectors, who had also been communicated with, arrived in the nick of time and discovered a badly diseased animal. The illustration shows the local butcher under the direction of Inspector Hoey pouring kerosene on the disease-infected carcass (see cut). Later it was buried. According to one story, the local butcher was refunded the entire amount paid for the animal, and according to another version, one-half the amount paid in fulfillment of a prearranged agreement. It would appear that neither the butcher nor the farmer were criminally culpable in the matter and both may be commended

for bringing the case to the attention of the authorities.

The case caused considerable comment in Elgin, as may be seen by the following accounts from the local papers:

Inspect Elgin Markets.

Elgin meat markets will be the object of the next raid of investigation in this city by state pure food inspectors. Already the work has started and on Friday last one local butcher was thoroughly questioned regarding beef he was selling, which was found to contain tuberculosis germs. It is not believed any prosecution will result.

State Food Inspector Frank Hoy and Inspector Kennicott spent Friday afternoon and to-day in Elgin. Upon returning to Chicago they took with them several samples of beef for further investigation by the pure food authorities. It is said they will return to Elgin within a few days and gather a more complete list of samples from the local dealers.

One sample of beef taken was found to contain thousands of tuberculosis germs. The dealer seemed as greatly surprised by this as the inspectors. He convinced them that he had purchased the animal from a farmer and believed it to be in perfect health.

Believing that the butcher told the truth the inspectors have decided not to prosecute him, as it would ruin his business were the name to become generally known. However, Elgin dealers in general have been warned to take the greatest precautions against selling meat of an inferior kind and wholesale prosecution will result if any are caught.

Inspectors Hoy and Kennicott arrived in Elgin shortly after noon to-day. They went to the farm west of Elgin, where one of the worst cases of diseased meat had been found, for the purpose of burying a carcass. Just before leaving town Inspector Hoy said that developments in the case might make prosecution necessary. Until this is definitely decided upon, he said, the names of parties implicated will be withheld.—Elgin Daily News of January 3.

Diseased Meat Found in Elgin.

Following the discovery made by state food inspectors, of a cow killed and dressed ready for market by an Elgin butcher, yet frightfully infected with tuberculosis, a sweeping investigation of cattle conditions in Kane county is imminent. The case is of such a horrible nature that the state board of cattle inspectors and the state veterinarian may be instructed to take a hand in the matter. It is probable that indictments will be asked for the Elgin butcher in the case.

CALL FOOD COMMISSIONER.

State Food Inspector Frank Hoy and Harrison Kennicott made the initial trip of investigation to the farm southeast of Elgin last Friday. Such revolting conditions were found that they were accompanied on a second visit yesterday by Assistant Pure Food Commissioner Herman E. Schuknecht. Sample cuts of the diseased flesh, which would have been served on more than one Elgin dinner table had not the inspector looked into the case, were taken to the state laboratories in Chicago yesterday.

Fearing prosecution, the Elgin butcher yesterday chopped the carcass he had prepared for market into small pieces and saturated it with kerosene while the inspectors looked on. The meat was then buried.

BUTCHER CLAIMS INNOCENCE.

The animal had been pronounced sound by an Elgin veterinarian. The butcher claimed that he purchased it and knew nothing of the disease. For this reason the inspectors believe they will have a hard case to prosecute. However, they claim the price he paid was such a nominal one that he must have known the animal was ailing in some way. Portions of the animal's lung glands, filled and swollen with tuberculosis germs, were shown yesterday.

"The case is one of the worst I ever saw," said Inspector Frank Hoy, who has been a cattle examiner for thirty-five years.

Authorities believe that the practice of buying and selling diseased meat is a common one in the community. They advise only the purchase of meat inspected by municipal authorities in Chicago.

FARMERS SELL IN COUNTRY.

"When a farmer believes he has a diseased animal he calls a country butcher, knowing the beef will not pass inspection in Chicago. A veterinarian, as in this case, looks for lumpy jaw or some other such trouble and, finding none, declares the beef sound. Then the people eat the meat," said Inspector Harrison Kennicott.

Because of these conditions, a thorough investigation by state authorities may be demanded for this vicinity by the pure food officers.—Elgin Daily News of January 4.

PURE FOOD.

Dr. Wiley of the Department of Agriculture has decided that the preservation of fruit by the use of sulphur fumes is deleterious and must be stopped. Thereupon the fruit industry in California is up in arms. It will strike the average reader that this decision hits at one of the holiest traditions of childhood. We were formerly told that sulphur was the very sheet anchor of youth. Every spring the infants of the household were marched up to their mother's knee and every morning had to take a tablespoonful of sulphur and molasses. Thus equipped they went out into the cold and unfeeling world and were supposed to be safe against all the maladies that lurked under the direction of the devil to molest the growing soul, from the itch down to the measles and "the chills." Now Dr. Wiley has shattered this sublime faith and reduced us back to the stage of unbelief where we do not take stock even in "roots and yarbs." No wonder that the fruit industry of California lifts up its voice in protest. We are willing to join them. The scientific deductions of one age are the superstitions of the next.—Ex.

(Still it must be remembered that sulphur, and sulphur fumes are two very different substances. One might cure and one might kill.)

THE EXCESSIVELY GOOD MAN.

"He has no enemies," you say;
My friend, your boast is poor;
He who hath mingled in the fray
Of duty that the brave endure
Must have made foes. If he has none,
Small is the work that he has done,
He has hit no traitor on the hip;
He has cast no cup from perjured lip;
He has never turned the wrong to right.
He has been a coward in the fight.

COURT DECISIONS

Supreme Court of the United States.

No. 24.—OCTOBER TERM, 1907.

The United States
vs.
A. Graf Distilling Company.

} On a certificate from the United States Circuit
Court of Appeals for the Eighth Circuit.

[January 27, 1908.]

[January 27, 1908.]

This case comes here on a certificate from the United States Circuit Court of Appeals for the Eighth Circuit. The proceeding was commenced in the District Court of the United States for the Eastern District of Missouri, January 4, 1905, by the United States District Attorney for that district, who filed therein an amended information, praying for a decree of forfeiture, condemnation and sale of three barrels of whisky, which had theretofore been seized by the collector of internal revenue and were still in his possession and custody.

The sole ground for the seizure and forfeiture averred in the information is contained in the following paragraph thereof, as certified by the Circuit Court of Appeals:

"That prior to the time of said seizure of said barrels and packages, they, and each of them, had been purchased and received by A. Graf & Co., they then being stamped, branded, and marked so as to show that the contents thereof were distilled spirits of a certain proof, which had before then been duly inspected by an officer of the revenue, to-wit, a United States gauger. That afterwards and before said seizure said barrels and packages, and each of them, and the contents therein then contained, were sold to divers persons, each of the barrels and packages at the time of the sales last aforesaid containing things else than the contents which were therein when said barrels and packages were so lawfully stamped, branded and marked by said officer of the revenue as aforesaid, to-wit, burnt sugar, commonly called caramel, which had been added to and placed in said spirits before said last-mentioned sales thereof, in violation of Section 3455 of the Revised Statutes of the United States, whereby and by force of said statute said barrels and packages and all the contents thereof became and are forfeited to the United States."

The claimant, A. Graf Distilling Company, demurred to the information on the ground that it was insufficient in law to authorize a decree of forfeiture.

The demurrer was sustained by the District Court and, the United States declining to plead further, it was adjudged that the barrels of whisky be restored to the claimant.

The ground of the decision of the District Court was that the purpose of Section 3455 of the Revised Statutes is to prevent the disposition of packages stamped, branded, or marked, when empty or when containing a taxable substance other than the contents which were therein when they were so lawfully stamped,

branded, or marked by an officer of the revenue; and that burnt sugar or caramel not being taxable is not within the meaning of the phrase "anything else" as contained in the section referred to.

The Circuit Court of Appeals, in order to a correct determination of the cause, desired the instruction of this court upon the following questions:

"1. Does the sale of a barrel of whisky, stamped, branded, and marked so as to show that the contents have been duly inspected, and that the tax thereon has been paid, into which burnt sugar or caramel has been introduced after such stamping, branding, and marking by an officer of the revenue, authorize a seizure and forfeiture thereof to the United States under the provisions of Section 3455 of the Revised Statutes of the United States?"

"2. Does the phrase 'anything else,' as employed in Section 3455 of the Revised Statutes, include substances that are not in themselves taxable under the laws of the United States?"

Section 3455 of the Revised Statutes (2 Comp. Stat. p. 2279), under which the seizure of the whisky was made, is set forth in the margin.*

*Sec. 3455. Whenever any person sells, gives, purchases, or receives any box, barrel, bag, vessel, package, wrapper, cover, or envelope of any kind, stamped, branded, or marked in any way so as to show that the contents or intended contents thereof have been duly inspected, or that the tax thereon has been paid, or that any provision of the internal revenue laws has been complied with, whether such stamping, branding, or marking may have been a duly authorized act or may be false and counterfeit, or otherwise without authority of law, said box, barrel, bag, vessel, package, wrapper, cover, or envelope being empty, or containing anything else than the contents which were therein when said articles had been so lawfully stamped, branded, or marked by an officer of the revenue, he shall be liable to a penalty of not less than fifty nor more than five hundred dollars. And every person who makes, manufactures or produces any box, barrel, bag, vessel, package, wrapper, cover, or envelope, stamped, branded, or marked, as above described, or stamps, brands, or marks the same, as hereinbefore recited shall be liable to penalty as before provided in this section. And every person who violates the foregoing provisions of this section, with intent to defraud the revenue, or to defraud any person, shall be liable to a fine of not less than one thousand nor more than five thousand dollars, or to imprisonment for not less than six months nor more than five years, or to both, at the discretion of the court. And all articles sold, given, purchased, received, made, manufactured, produced, branded, stamped, or marked in violation of the provisions of this section, and all their contents, shall be forfeited to the United States.

Mr. Justice Peckham, after making the foregoing statement, delivered the opinion of the Court.

Other phases of this controversy have appeared in the courts below and are reported in 125 Fed. 52, and

129 Id. 329. After the reversal of the judgment of forfeiture and the granting of a new trial by the Circuit Court of Appeals, as disclosed by those reports, the information was amended by making the allegations contained in the foregoing statement, and the original averment as to placing other distilled spirits of a different quality in the barrels after being stamped is not before us.

We are here called upon to determine what is the proper construction of the language of the statute when it speaks of selling a barrel and its contents after it has been properly stamped, and which at the time of sale contained anything else than the contents which were therein when the barrel was stamped by the revenue officer. Does the addition after such stamping, of burnt sugar or caramel, placed in the barrel for the sole purpose of coloring the contents (in this case whisky) and without intent to defraud the revenue or any person, render the seller liable to the penalty provided by the statute, and the barrel and its contents liable to forfeiture? This coloring matter was not itself taxable. There is no charge that it is unhealthy, and it is plain that its use defrauds no one within the legal meaning of that term. The statute is not a health law, nor is its purpose to prevent the coloring of whisky before its sale to the consumer. The matter which was added to the contents of the barrel, after it was stamped and branded, did not increase or decrease the amount of the tax otherwise payable on the spirits so colored.

The government, however, contends that it is wholly immaterial whether the coloring matter added is not itself taxable; it is, within the terms of the statute, something "else than the contents which were" in the barrel when it was lawfully stamped by the officer of the revenue, and if the person who adds the coloring matter subsequently sells the barrel and contents such act subjects them to forfeiture, and renders the person making the sale subject to the penalty named in the first part of the section. The counsel for the government insists that there is no room for construction other than such as the plain language of the statute calls for; and it is contended that to hold otherwise destroys the statute and opens the door to fraud which is not easy to detect, and which the statute was intended to prevent. In a very careful review of the various provisions of the internal revenue statute, counsel for the government has called attention to many acts which are forbidden and which would seem to be innocent, but which were, nevertheless, thought to be of such a character as to open the door for fraud upon the revenue, and hence it is argued that this addition of coloring matter was an act which although it might seem to be innocent in itself, yet nevertheless comes within the plain prohibition of this section, and effect must be given to that prohibition, because it may tend to prevent some subsequent fraud, however harsh or unreasonable the provision might otherwise seem to be. We must first, however, be satisfied that this alleged total, absolute and unconditional prohibition was the real intention of Congress, to be gathered from the language of the section when read in connection with the language of the whole statute. There is no doubt that many of its provisions are harsh beyond anything known heretofore in our history (*United States v. Ulrici*, 3 Dill. 532, 539), and yet we cannot persuade ourselves that the act proved in this case comes within the law.

The section is one of many dealing with the subject of collecting a revenue from the taxation of the articles therein mentioned and in the manner therein provided. The aim of the whole statute is to make all of the taxable articles actually pay the tax, and to that end it prohibits those acts which might possibly lead to an evasion of the payment of the tax due upon any taxable article. When, therefore, in the course of the many provisions for collecting the tax and for preventing any evasion of its due payment the statute prohibits the putting of anything else in the barrel or package, etc., after it has been branded or stamped, it seems to us the natural meaning of the language limits the addition to anything of a taxable nature and does not include an article which is not taxable, is wholly harmless and added for a purpose not illegal or in itself improper.

We concur, of course, in the rule which has been upheld in this court, that a statute like this one, for the raising of a revenue, even when accompanied by provisions of a very highly penal nature, is still to be construed as a whole and in a fair and reasonable manner, and not strictly in favor of a defendant. *United States v. Stowell*, 133 U. S. 1. Construed under this rule, we are unable to conclude that the section applies to this case. The language used, when considered in connection with the whole statute, is not so plain as to preclude the application of those general rules of construction of statutes which frequently interpret language in accordance with what seems to be the real meaning of the legislature, although not in exact and literal obedience to the wording of the law.

We do not think that the opportunities for perpetrating a fraud upon the revenue are in any way extended by reason of the addition in question. A liquor dealer having a properly stamped barrel in his possession might violate the law and empty the contents of the barrel without destroying the stamps, and might then dispose of the barrel, so stamped, to an illicit distiller, who might then endeavor to perpetrate a fraud upon the revenue by filling the barrel with non-tax paid spirits, but we do not see that the prior addition, as mentioned, of coloring matter to the contents of the barrel would aid him in his attempt, nor would the absence of such matter tend in any degree to its prevention or detection. It is not the coloring matter which was added to the contents of the barrel before they were emptied that would in such case aid the attempted fraud, for such coloring matter would probably have been emptied with the other contents of the barrel. The opportunities for fraud commenced at the time the liquor dealer emptied the contents of the barrel without destroying the stamp, and that opportunity was not in the slightest degree affected by the addition, and the attempted fraud of the distiller is not made more easy of accomplishment because of such addition. We cannot see, therefore, that any reasonable purpose could be attributed to Congress in prohibiting an addition, such as is charged in this case, and we cannot construe the section on the mistaken theory that though the act was really innocent, yet it might aid in the evasion of payment of some portion of a tax, and hence must be regarded as prohibited.

The statute in question, although there has been no intent to defraud, makes a person violating it liable to the lighter penalty, while if the intent to defraud be alleged the article is still liable to forfeiture and the

person may be fined a much larger sum and also imprisoned. On this ground it is contended the statute is intended to meet just such a case as the one before us, where there was no intent to defraud and where there was no addition of anything which was itself taxable, but where, nevertheless, something else had been added after the stamping and branding, which was not a part of the contents of the barrel when it was so stamped. It is therefore urged that as the section provides for a forfeiture of the article and a fine upon the person guilty of the addition, even when no intent to defraud is alleged or proved, it emasculates the section to hold that the addition must be something which is itself taxable. We do not think so. When there has been an addition of anything that was taxable, the statute applies, although there was no intention to defraud, while if there were such intention a much heavier penalty is imposed. The two portions of the section are distinct and each may be enforced, however harsh the first may appear to be, when imposed in a case where the action was really without any intention to defraud the revenue or any person.

It has been held under other sections of this act, somewhat similar, that the addition of water to the contents of a barrel or package is no ground of forfeiture. We do not say that the language is exactly the same, but only that it is somewhat similar. *United States v. Thirty-two Barrels of Distilled Spirits*, 5 Fed. 188; *Three Packages of Distilled Spirits*, 14 Id. 569; *United States v. Bardenheier*, 49 Id. 846, 948; *United States v. Nine Casks, etc.*, 51 Id. 191. Reference is made to them in the opinion in this case in 125 Fed. *supra*.

We think the reasonable construction of this statute requires that the questions submitted should be answered in the negative. It will be.

So certified.

CONSTRUCTION OF OLEOMARGARINE LAW

Section 4,607c of the Wisconsin Statutes of 1898, as amended by chapter 151 laws of 1901, provides that any person who "shall by himself, his agent or servant, render or manufacture, sell or solicit or accept orders for, ship, consign, offer or expose for sale, or have in possession with intent to sell, any article, product or compound made wholly or partly out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, and without the admixture or addition of any fat foreign to said milk or cream, which shall be in imitation of yellow butter produced from such milk or cream with or without coloring matter," shall be punished, etc. "Nothing in this section shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form and in such manner as will advise the consumer of its real character and free from coloration or ingredient that causes it to look like butter."

The Supreme Court of Wisconsin says, *State vs. Meyer*, 114 Northwestern Reporter, 501, that it cannot consider the last quoted sentence as enlarging in any degree the preceding prohibitory or descriptive words of the statute. Manufacturing, selling, or having in possession with intent to sell a described product is prohibited. Following this by a provision that the preceding words shall not be construed to prohibit the manufacture, or sale, etc., of oleomargarine in a certain manner, and of a certain kind, merely indicates

that in the exercise of abundant caution the legislature forbade the extension of the prohibition mandate of the statute so as to take in or include that which it described as excluded. There is a common form of expression often found in statutes and other writings where a general word or words followed by an excepted thing or instance is somewhat broadened by such exception because of the inference that the exception noted is the only exception. But the form of expression under consideration is not within that rule. This last sentence may, however, in connection with other statutes relating to the same subject-matter, such as section 4,607d, perform some office as an aid in construction; that is to say, in determining upon what particular ground of police regulation these statutes are founded, and whether or not the legislature intended to recognize as lawful in this state the manufacture, possession, and sale of oleomargarine as a commodity subject to the regulations found in the statutes.

It was established by the evidence, and conceded upon the argument, that the oleomargarine in question was a healthful food product compounded of oleo oil extracted from beef tallow, neutral lard, cotton seed oil, and salt. The statutes referred to recognize the right to manufacture, sell, and deal in this product. The question whether the legislature possesses the power to forbid its manufacture, sale, or use in this state was not before the court.

It being conceded that the product contained no ingredient injurious or dangerous to health, and the statutes containing provisions recognizing the right to sell, but requiring the seller to disclose the nature of the article sold, and forbidding the product to be in imitation of yellow butter, it must follow that this police regulation respecting the manufacture and sale relates, not to the public health, but to the public safety, that is, to the prevention of frauds or imposition. The statute must be construed accordingly.

It was known to the legislature when this law was enacted that butter varies in color from nearly white to yellow. The compound prohibited is only that kind of oleomargarine which shall be in imitation of yellow butter. The statute apparently recognizes the right of a producer of whitish or light-colored butter to escape from the competition of oleomargarine by dyeing his butter yellow. This has some bearing upon the construction of the statute.

But the same statute authorizes the sale of oleomargarine unless it shall be in imitation of yellow butter. The words "yellow butter" require no definition to explain their meaning. They are used in this statute in the popular, rather than in any trade, or technical, sense. They define themselves. And first of all it must be obvious that yellow butter does not mean all kinds of butter. Yet the trial court instructed the jury as follows: "Butter, that is, natural butter, as is shown by the undisputed testimony in this case, and as is a matter of common knowledge, varies in the degree of yellow from light straw color in winter to a rich light orange yellow in the summer. Colored butter varies from a shade of yellow somewhat more pronounced than the natural color of winter butter to shades higher than the highest natural color of summer butter, and all these shades of yellow in butter come within the protection of this law, and it is equally forbidden to sell oleomargarine in imitation of the lightest shade of yellow butter, colored or uncolored, as it is of the most pronounced or intermediated

shades." Here the jury were informed that natural butter as a matter of common knowledge varies between certain shades of yellow. This must have been understood by the jury to mean all natural butter. This is the ordinary and natural import of the language. It may be that there is no purely white butter, and that placed alongside of white paint the whitest butter would show a yellow tinge, and it may be that light straw color approximates white but never quite reaches it. But after having assumed this to be true, and after having thus described butter generally, when the court charged the jury that it was forbidden to sell oleomargarine in imitation of the lightest shade of yellow butter, colored or uncolored, as much as it was forbidden to sell it in imitation of the most pronounced or intermediate shades, he added to the statute something not found therein, and it laid down a rule of law which, if followed by this court, would go far to convict the lawmakers of having, under pretense of making a police regulation to prevent fraud, enacted a law to exclude all competition of oleomargarine with all kinds of butter. This was error.

The court is also convinced that the trial court erred in the reception of evidence. After a witness had testified that he was familiar with the shade of yellow butter that is manufactured and sold in Wisconsin for the markets of Chicago, Elgin and New York, he was shown the oleomargarine in which the defendants had been dealing, and which was offered and received in evidence as Exhibit A, and asked: "Q. How does that article, Exhibit A, compare in color with the color of butter that is manufactured here in this part of the state for those markets?" An objection to this question was overruled, and the court considers that ruling erroneous. There was similar error in overruling an objection to a question as to whether, in the judgment of a witness, Exhibit A would pass as far as color was concerned for the markets of Elgin, New York, Milwaukee and Chicago?

The inquiry in a criminal prosecution under this statute may for the purpose of analysis be divided into two branches: (1) Does the compound in question come within the prohibition of the statute? (2) Did the accused sell, ship, consign, etc., this compound?

With reference to the first branch of the inquiry, viz.: Is the article in question an article, product or compound made wholly or partially out of any fat oil or oleaginous substance not the product of milk or cream, and which is in imitation of yellow butter?—it does not tend to establish the affirmative of this simple issue of fact, but rather to confuse it when evidence is offered to show how the article in question compares in color with the color of butter that is manufactured in this part of the state for the markets of Chicago, Elgin, and New York. The article is to be compared with yellow butter by direct testimony of any person who is able to testify on the subject, and that will include all ordinary witnesses except those who show affirmatively their lack of knowledge or some degree of color blindness. These reasons exclude any evidence in regard to whether or not the article in question would pass as far as color is concerned for the markets of Elgin, Chicago, Milwaukee and New York, or in any other market. Such evidence tends to lead the jury away from the true point of inquiry, and, having received the sanction of the court by his ruling admitting it, and thereafter in the charge to the jury, must be deemed to have had a prejudicial effect. The jury were thus led to compare the article

or compound in question, not with the terms of the statute, but with some rule or criterion not found in the statute. It would be adding to the statute to construe it as prohibiting the sale of a compound in imitation of any very light shade of yellow butter, or in imitation of some shade of yellow butter which met the demands of the market, or the standard of the operators at Elgin or elsewhere, if such shade or standard was not in fact yellow butter within the plain and popular meaning of these terms. If such standard was yellow butter within the ordinary and popular meaning of these terms, then the evidence was immaterial but misleading.

The question whether the article sold by the defendants was the identical thing which is contraband by statute must be determined by the testimony of witnesses who have seen it, or by the testimony of witnesses, aided by an inspection of the article itself, and its resemblance to yellow butter is a factor in such determination. If the article is in imitation of yellow butter, it matters not whether such imitation is brought about by the addition of a dye or by the selection of ingredients.

Color is the impression given to the eye by lines of light of various rates of vibration. The reason for the natural color of bodies is a difficult subject, and one that is scarcely yet understood. It has perhaps some relation to the molecular or atomic structure of such bodies, but there is no scientific distinction so far as producing color is concerned between imitating or producing color by the addition of an ingredient known as a dye and added for the purpose alone of producing a given color and the selection and addition of an ingredient which performs the same coloring function, but at the same time adds other qualities to the compound.

The words, "which shall be in imitation of," used in describing the contraband compound, imply a conscious imitation in the manufacture thereof. If one forming a compound of several ingredients knowingly select and use an ingredient which imparts to the compound the color of yellow butter, he having choice of ingredients, he will have made his compound, in imitation of yellow butter just as well as if he selected a dye. There is, however, this difference, viz., proof of the presence of the dye, which can have no other function than that of producing color, shows the conscious imitation quite clearly, while proof of the selection of the ingredients which produced the color of yellow butter, the person selecting having a choice of ingredients, is a fact from which the jury is authorized to infer a conscious imitation notwithstanding such ingredient so selected has other qualities or is one of its forms or in one of its colors a necessary ingredient of oleomargarine.

Whether or not the article in question is in imitation of yellow butter cannot be determined alone by its resemblance to yellow butter, but resemblance aided by evidence of a dye as one of its ingredients, or resemblance aided by evidence of the existence of available necessary ingredients which will not impart to the compound the color of yellow butter and of the existence of other available ingredients which will impart to the compound the color of yellow butter, may be considered by the jury as establishing or tending to establish conscious imitation by selection of ingredients. What is yellow butter and whether the article in question is an imitation of yellow butter are questions of fact.

F. I. D. 84-86.

Issued February 10, 1908

United States Department of Agriculture

OFFICE OF THE SECRETARY
BOARD OF FOOD AND DRUG INSPECTION

FOOD INSPECTION DECISIONS 84 AND 85

84. Amendments to Regulations 17 and 19. 85. Labeling of Bitters.

(F. I. D. 84.)

AMENDMENTS TO REGULATIONS 17 AND 19

The Board of Food and Drug Inspection recommends that Regulations 17 and 19 of the Rules and Regulations for the Enforcement of the Food and Drugs Act of June 30, 1906, be amended to read as follows, such amendments to become and be effective at the date of issue:

MISBRANDING.

Regulation 17. Label.

(Section 8.)

(a) The term "label" applies to any printed, pictorial, or other matter upon or attached to any package of a food or drug product, or any container thereof subject to the provisions of this act.

(b) The principal label shall consist, first, of all information which the food and drugs act, June 30, 1906, specifically requires, to-wit, the name of the place of manufacture in the case of food compounds or mixtures sold under a distinctive name; statements which show that the articles are compounds, mixtures, or blends; the words "compound," "mixture," or "blend," and words designating substances or their derivatives and proportions required to be named in the case of foods and drugs. All this information shall appear upon the principal label, and should have no intervening descriptive or explanatory reading matter. Second, if the name of the manufacturer and place of manufacture are given, they should also appear upon the principal label. Third, preferably upon the principal label, in conjunction with the name of the substance, such phrases as "artificially colored," "colored with sulphate of copper," or any other such descriptive phrases necessary to be announced should be conspicuously displayed. Fourth, elsewhere upon the principal label other matter may appear in the discretion of the manufacturer. If the contents are stated in terms of weight or measure, such statement should appear upon the principal label and must be couched in plain terms, as required by Regulation 29.

(c) If the principal label is in a foreign language, all information required by law and such other information as indicated above in (b) shall appear upon it in English. Besides the principal label in the language of the country of production, there may be also one or more other labels, if desired, in other languages, but none of them more prominent than the principal label, and these other labels must bear the information required by law, but not necessarily in English. The size of the type used to declare the information required by the act shall not be smaller than 8-point (brevier) capitals: *Provided*, That in case the size of the package will not permit the use

of 8-point type, the size of the type may be reduced proportionately.

(d) Descriptive matter upon the label shall be free from any statement, design, or device regarding the article or the ingredients or substances contained therein, or quality thereof, or place of origin, which is false or misleading in any particular. The term "design" or "device" applies to pictorial matter of every description, and to abbreviations characters, or signs for weights, measures, or names of substances.

(e) An article containing more than one food product or active medicinal agent is misbranded if named after a single constituent.

In the case of drugs the nomenclature employed by the United States Pharmacopœia and the National Formulary shall obtain.

(f) The use of any false or misleading statement, design, or device appearing on any part of the label shall not be justified by any statement given as the opinion of an expert or other person, nor by any descriptive matter explaining the use of the false or misleading statement, design, or device.

REGULATION 19. CHARACTER OF NAME. (Section 8.)

(a) A simple or unmixed food or drug product not bearing a distinctive name should be designated by its common name in the English language; or if a drug, by any name recognized in the United States Pharmacopœia or National Formulary. No further description of the components or qualities is required, except as to content of alcohol, morphine, etc.

(b) The use of a geographical name shall not be permitted in connection with a food or drug product not manufactured or produced in that place, when such name indicates that the article was manufactured or produced in that place.

(c) The use of a geographical name in connection with a food or drug product will not be deemed a misbranding when by reason of long usage it has come to represent a generic term and is used to indicate a style, type, or brand; but in all such cases the State or Territory where any such article is manufactured or produced shall be stated upon the principal label.

(d) A foreign name which is recognized as distinctive of a product of a foreign country shall not be used upon an article of domestic origin except as an indication of the type or style of quality or manufacture, and then only when so qualified that it can not be offered for sale under the name of a foreign article.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

GEO. B. CORTELYOU,
Secretary of the Treasury.

JAMES WILSON,
Secretary of Agriculture.

OSCAR STRAUS,
Secretary of Commerce and Labor.

Washington, D. C., January 31, 1908.

(F. I. D. 85.)

LABELING OF BITTERS.

In section 6 of the food and drugs act of June 30, 1906, the term "drug," as defined in the act, includes "all medicinal preparations recognized in the United

States Pharmacopœia or National Formulary for internal or external use and any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease in either man or other animals."

Notwithstanding this comprehensive definition, it appears from a large correspondence on this subject that there is still some uncertainty as to whether or not certain commodities should be classed as drug products, and of this type are the alcoholic products known as "bitters."

It is necessary to determine definitely whether or not "bitters," for example, are to be classed as drugs. This is necessary for the reason that under section 8 of the food and drugs act a drug is deemed misbranded "if the package fails to bear a statement on the label of the quantity or proportion of any alcohol * * * contained therein."

On investigation of labels that are found on "bitters" it has been discovered that in most cases they are recommended for various ailments. For example, they are said to "aid digestion," "allay irritation of the nerves," "excite the appetite to a marvelous degree," "prolong life." Again, labels bear the statements "is not only a delicious beverage, but also a wonderful tonic," "valuable in intermittent fever, illness due to the spleen, stomach catarrh, diarrhea, colic, cramps, vomiting, hypochondria, etc." These are examples of common phrases found on labels. "Bitters" are frequently prescribed in the same manner as medicines in general. For example, "to be taken in tablespoons full every hour," "increase the dose if the effect is not immediate," etc.

It is well known that certain substances may be used both as foods and as drugs. It is claimed by some that certain products advertised as medicinal products are not sold and consumed on account of their medicinal properties, but merely as alcoholic beverages. This, however, does not seem to be consistent with the information found on some of the labels.

In a case of this kind the classification will be made from a study of the literature published in connection with the article and by ascertaining the uses to which it is put. When a "bitters" is described on the carton or label attached to the bottle or any advertising matter accompanying the package, as possessing any medicinal or tonic properties, or if in fact it does possess such value, it must of necessity be classed as a drug product and, in consequence of this classification, bear a statement of the quantity or proportion of any alcohol contained therein. The method of stating the proportion of alcohol is that of per cent by volume, as suggested in Regulation 28 of Circular 21 of the Office of the Secretary. In Food Inspection Decision 52 is the suggested order in which the statements required by law should occur on a label.

This food inspection decision is promulgated so that those interested in the importation of "bitters" may understand how the Department is obliged to rule in such cases, the decision as to whether a product be a food or a drug depending not only upon what claims are made for it, but also upon the uses to which it is put. This same principle must guide the Department in its interpretation of the law gov-

erning similar products which have the dual function of serving as both foods and drugs.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., February 3, 1908.

NEWS FROM ITALY.

Messina, Sicily, December 28, 1907.

H. B. Meyers:

Dear Sir—I write you in Italian, that language being easier for me, and you can find some one to translate it.

With much pleasure I remember when we first became acquainted in Washington and thank you for your kind invitation to come to Chicago, which I could not accept, having been compelled to return to Italy.

As you must have heard, the question on lemon essence has resulted favorably, after which I happily returned to my own country.

Dr. Chase of Washington is here. He was sent by your government to study the lemon essence question. The American Government is now commencing to realize the necessity of studying closely this product, so variable in itself. After Dr. Chase will have studied the properties of the lemon essence of this and next year's crops, the production of this essence occurs twice a year relatively to its physico-chemical requisites; then he will be able to publish the real standard and vigorously demand that the shippers of the lemon essence abide strictly by it.

The new production of lemon, orange and bergamot (pear) essence is excellent as to quality because the season was favorable and the climate very mild. The optical rotation of the lemon essence seems high; the specific weight and the citrale between 3.50 and 4 per cent. I cannot send an accurate average because the production has not completely commenced in every place.

From a commercial point of view this is what I know.

For the sweet orange essence is foreseen an increase on the price owing to the scarcity of the production.

As for the lemon and bergamot essence, nothing can be said; even if both promise a normal production the producers stubbornly resist, so that the price will not decrease; because, having paid too high a price for the lemons, they would suffer severe losses.

Later on I will send you more precise news.

I thank you for the newspapers sent me and which I enjoyed so much.

Wishing you a prosperous New Year, with my sincere regards, I am,

Yours,

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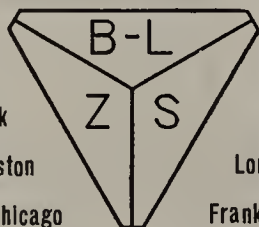
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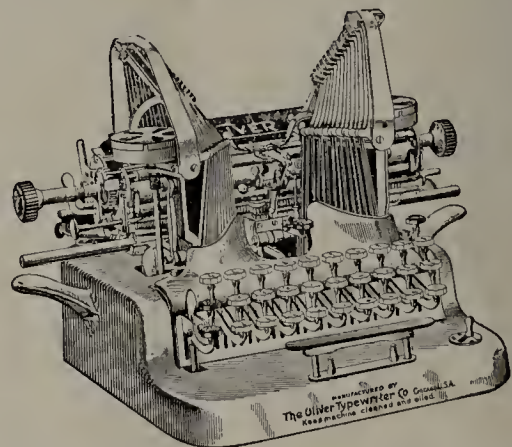
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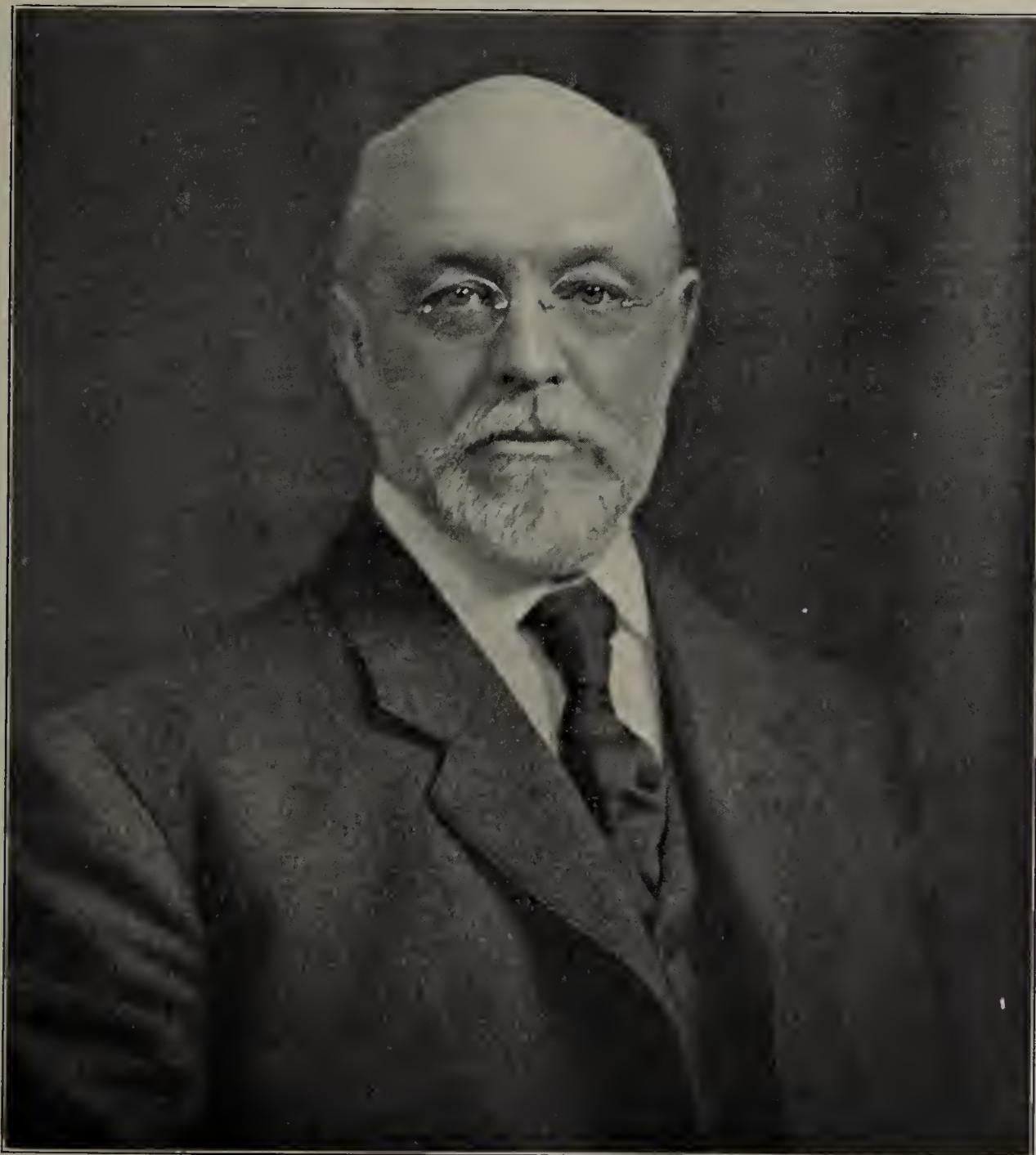
THE AMERICAN FOOD JOURNAL



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THE NEW KENTUCKY FOOD LAW.

An act for preventing the manufacture and sale of adulterated or misbranded foods, drugs, medicines and liquors, and providing penalties for violations thereof.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

1. That it shall be unlawful for any person, or persons, firm or corporation within this state to manufacture for sale, produce for sale, expose for sale, have in his or their possession for sale, or to sell any article of food or drugs which is adulterated or misbranded within the meaning of this act; and any person or persons, firm or corporation who shall manufacture for sale, expose for sale, have in his or their possession for sale, or sell any article of food or drugs which is adulterated or misbranded within the meaning of this act shall be fined not less than ten dollars nor more than one hundred dollars, or be imprisoned not to exceed fifty days, or both such fine and imprisonment; provided that no article of food or drug shall be deemed misbranded or adulterated within the provisions of this act when intended for shipment to any other state or country, when such article is not adulterated or misbranded in conflict with the laws of the United States; but if said article shall be in fact sold or offered for sale for domestic use or consumption within this state, then this provision shall not exempt said article from the operations of any of the other provisions of this act.

2. That the term "food" as used in this act shall include every article used for or entering to the composition of food or drink for man or domestic animal, including all liquors.

3. For the purpose of this act an article of food shall be deemed misbranded: First, if the package or label shall bear any statement purporting to name any ingredients or substance as not being contained

in such article which statement shall not be true in any part, or any statement purporting to name the substance of which such article is made, which statement shall not give fully the name or names of all substances contained in any measurable quantity. Second. If it is labeled or branded in imitation of or sold under the name of another article or is an imitation either in package or label of another substance of a previously established name; or if it be labeled or branded so as to deceive or mislead the purchaser or consumer with respect to where the article was made or as to its true nature and substance, or as to any identifying term whatsoever, whereby the purchaser or consumer might suppose the article should possess any property or degree or purity or quality which the article does not possess. Third. If in the case of certified milk it be sold as or labeled "certified milk" and it has not been so certified under rules and regulations by any County Medical Society, or if when so certified it is not up to that degree of purity and quality necessary for infant feeding. Fourth. If it be misrepresented as to weight or measure, or if where the length of time the product has been ripened, aged or stored, or if where the length of time it has been kept in tin or other receptacle tends to render the article unwholesome, the facts of such excessive storage, ripening, aging or packing are not made plainly known to the purchaser and to the consumer. Fifth. If the package containing it or its labels shall bear any statement designed or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or misleading in any particular; provided that articles of liquor

which do not contain any added provisions or deleterious ingredients shall not be deemed to be adulterated or misbranded within the provisions of this act, in the case of articles labeled, branded or tagged so as to plainly indicate that they are compounds, imitations, or blends, and the words "Compounds," "Imitations," or "Blends," as the case may be, is plainly stated on the package in which it is offered for sale; provided that the term blend, as used herein, shall be construed to mean a mixture of like substances not excluding harmless coloring and flavoring ingredients used for the purpose of coloring and flavoring only.

4. For the purposes of this act an article of food shall be deemed to be adulterated: First. If any substance or substances be mixed or packed with it so as to reduce, lower or injuriously affect its quality or strength. Second. If any substances be substituted wholly or in part for the article. Third. If any valuable constituent of the article has been wholly or in part abstracted or if the product is below that standard of quality represented to the purchaser or consumer. Fourth. If it is mixed, colored, powdered, coated, polished or stained whereby damage is concealed, or if it is made to appear better or of greater value than it is, or if it is colored or flavored in imitation of the genuine color or flavor of another substance of a previously established name. Fifth. If it contains added poisonous ingredient which may render such article injurious to health, or if it contains any antiseptic or preservative which may render such article injurious to health, or any other antiseptic or preservative not evident or not plainly stated on the main label of the package. Sixth. If it consists of or is manufactured from, in whole or in part, of a disease contaminated, filthy or decomposed substance, either animal or vegetable, unfit for food, or any animal or vegetable substance produced, stored, transported or kept in a condition that would render the article diseased, contaminated or unwholesome, or if it is in any part the product of a diseased animal or the product of an animal that has died otherwise than by slaughter, or that has been fed upon the offal from a slaughter house, or if it is the milk from an animal fed upon a substance unfit for food for dairy animals, or from an animal kept and milked in a filthy or contaminated stable or in surroundings that would render the milk contaminated; provided, that any article of food which may be adulterated and not misbranded within the meaning of this act, and which does not contain any added poisonous or deleterious ingredient and which is not otherwise adulterated within the meaning of paragraphs 4, 5 and 6, of Section 4 of this act, or which does not contain any filler or ingredient which debases without adding food value, can be manufactured or sold, if the same be labeled, branded or tagged so as to show the exact character thereof; and all such labels and all labeling of packages provided for in any previous section of this act shall be on the main label of each package and in such position and character of type and terms as will be plainly seen, read and understood by the purchaser or consumer, provided further that nothing in this act shall be construed as requiring or compelling the proprietors, manufacturers or sellers of proprietary foods which contain no unwholesome substances or ingredients to disclose their trade formulas except in so far as the provisions of this require to secure freedom

from adulteration, imitation or misbranding. But in the case of baking powders, every can or other package shall be labeled so as to show clearly the name of the acid salt, which shall be plainly stated in the face of the label to show whether such salt is cream of tartar, phosphate or alum; provided further, that nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine, butterine or kindred compounds in a separate and distinct form and in such manner as will advise the consumer of the real character, free from coloration or ingredient that causes it to look like butter.

5. That the term drug, as used in this act shall include all medicine and preparations recognized in the latest revision of the United States Pharmacopœia or National Formulary for internal or external use, and any substance intended to be used for the cure, mitigation or prevention of diseases, either of man or other animal, and shall include paris green and all other insecticides and fungicides.

6. That for the purposes of this act an article or drug shall be deemed to be adulterated: First. If when a drug is sold under or by the name recognized in the United States Pharmacopœia or National Formulary, it differs from the standing of strength, quality or purity, as determined by the lists laid down in the United States Pharmacopœia or National Formulary official at the time of investigation; provided, that no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality or purity be plainly stated upon the bottle, box, or other container thereof, although the standard may differ from that made by the tests laid down in the United States Pharmacopœia or National Formulary. Second. If the strength or purity fall below the professed standard or quality under which it is sold. Third. If in putting up any drug, medicine or preparation, proprietary or otherwise, used in medical practice, or if in making a prescription or filling an order for drugs, medicines or preparations, proprietary or otherwise, one article is substituted or dispensed for a different article for or in lieu of the article prescribed, ordered and demanded, or if a greater or less quantity of any ingredient specified in such prescription order or demand is used than that prescribed by, ordered or demanded, or if it deviates from the terms of the prescription, order or demand, by substituting one drug for another; provided, that except in the case of physicians' prescriptions nothing herein shall be deemed or construed to prevent or impair or in any manner affect the right of the druggist or pharmacist or other person to recommend the purchase of an article other than ordered, required or demanded, but of a similar nature, or to sell such article in lieu of an article ordered, required or demanded, with the knowledge and consent of the customer.

7. For the purposes of this act an article or drug shall be deemed to be misbranded: First. If the package or label bears any statement, design or device regarding such article or drug, or regarding any ingredient or substance contained therein which shall be false or misleading in any particular, or if it is falsely branded as to state, territory or country in which it is manufactured or produced. Second. If it be an imitation of or offered for sale under the name of another article, or if it be labeled, branded or

represented or sold so as to deceive or mislead the purchaser or consumer as to the quality, purity or medicinal value. Third. If the contents of the package as originally put up, or the contents of the package, box, bottle, vial, can or other container, sold or exposed for sale, delivered, given away, shipped or offered for shipment, shall have been removed in whole or in part and other contents shall have been placed in such package or box, vial, can or other container, or if any package or container has been once emptied and new contents placed therein all original labels, marks, brands and identifying marks are not entirely removed or effaced and new labels, marks and brands truthfully describing the new product or products affixed. Provided, that such new contents shall not be like or similar to said original contents. Fourth. If the package, box, bottle, vial, can or other container shall fail to bear a statement of the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, acannuabis, indica, chloral hydrate, acetanilide, or any derivative or any preparations of any such substances contained therein. Provided, that nothing in this paragraph shall be construed to apply to the dispensing of prescriptions written by a regularly licensed practicing physician, veterinary surgeon or dentist, and kept on file by the dispensing pharmacist, or to such drugs as are recognized in the United States Pharmacopœia and the National Formulary, and which are sold under the name by which they are recognized; and provided further, that this provision shall not be construed as repealing or in conflict with any statute which prohibits the sale of certain drugs except upon a prescription of a physician; and provided further, that nothing in this act shall be construed as repealing any acts regulating the practices of medicine or pharmacy not in conflict herewith; provided further, that no prescription shall be knowingly refilled except for the person for whom it was written.

8. It shall be the duty of the director of the Kentucky Agricultural Experiment Station, or under his direction the head of the division of food inspection of the said station, to make, or cause to be made, examinations of samples of food and drugs manufactured or on sale in Kentucky at such times and place and to such extent as he may determine. He shall also make, or cause to be made, analysis of any sample of food or drug which the State Board of Health or the State Board of Pharmacy may suspect of being adulterated or misbranded and of any sample of food or drug furnished by any commonwealth's county or city attorney of this state. And the said director may appoint such agent or agents as he may deem necessary who shall have free access at all reasonable hours for the purpose of examining into places where any food or drug product is being produced, manufactured, prepared, kept or offered for sale, for the purpose of determining as to whether or not any of the provisions of this act are being violated, and such agent or agents, upon tendering the market price of any article, may take from any person, firm or other corporation a sample of any article desired for examination. The director of said experiment station is hereby empowered to adopt and fix the methods by which the samples taken under the provisions of this act shall be analyzed or examined and to adopt and fix standards of purity, quality or strength when such

standards are necessary or are not specified or fixed herein by statute; provided, that such standards shall be published for the information and guidance of the trade; provided further, that for the purpose of uniformity when such standards so fixed differ from the legally adopted standards of the United States Department of Agriculture, the director of said station shall arrange for a conference between the proper food control representatives of the United States Department of Agriculture and the director of said station and the representative of the trade be affected for the purposes of arriving if possible at a uniform state and national standard; provided further, that in the case of final dispute the validity of such standard adopted by the director of said station shall be determined by the courts under the rules of evidence. And provided further, that when the standard or nomenclature for any food or food product has been determined by the Supreme Court of the United States such standard or nomenclature shall govern in the enforcement of the provisions of this act; provided further, that all rulings pertaining to sanitation under this act shall be collaborated in connection with the State Board of Health; and provided further, that at the regular annual meeting of the Kentucky Pharmaceutical Association and the Kentucky State Medical Association each of said associations shall elect one representative, which representatives, together with the director of said station, shall make and establish all rules and regulations for the governing and carrying out of the provisions of this act relating to drugs.

9. Whenever any article shall have been examined and found to be adulterated or misbranded in violation of this act the director shall certify the fact to the commonwealth's attorney of the district, or to the county attorney of the county, or the city attorney of any city or town, in which the said adulterated or misbranded food or drug product was found, together with a statement of the results of the examination of said article of food or drug, duly authenticated by the analyst under oath and taken before some official of this commonwealth authorized to administer an oath bearing a seal; and it shall be the duty of every commonwealth's attorney, county attorney and city attorney to whom the director of said station shall report any violation of this act, or to whom the State Board of Health, or the State Board of Pharmacy, or to whom the chief health officer of any county, city or town shall report any such violation, to cause proceedings to be commenced against the party so violating the act, and the same prosecuted in manner as required by law; provided, however, that in case of the first charge or finding the manufacturer or dealer shall be notified of the findings and be given a hearing within fifteen days before a report is made to the commonwealth, county or city attorney as herein provided. Provided further, that where more than one sample of the same brand of product has been taken and examined, the first finding or charge shall be construed to apply to all samples so taken, and notice and hearing shall apply to all such samples.

10. Said station shall make an annual report to the Governor upon adulterated food or drug products in addition to the reports required by law, which shall not exceed 150 pages, and such annual reports shall be submitted to the General Assembly at its regular session, and said station may issue from time to time

a bulletin giving the results of the inspections and of all analyses of samples taken or submitted for examination under this act, together with the names of the parties from whom the samples were taken, or where the inspections were made, and as far as possible the name of the manufacturers, the number of samples found to be adulterated, the number found not adulterated and other information which may be of interest to the manufacturers or dealers in food or drug products or to the consumers. Provided, however, that before such publication is made the manufacturer of the article and the dealer shall be furnished a true copy of the facts to be published regarding the article at least thirty days before the publication and hearing given the dealer and manufacturer, and any statements or explanations made by such manufacturer shall be included in the same place and along with the publication made regarding the article; and provided further, that if at the hearing of the manufacturer or dealer, as provided by Section 9 hereof, said manufacturer shall produce the affidavit of a competent analytical chemist controverting the finding of said station or its directors or chemists, as the case may be, and affirmatively showing that there is neither adulteration or misbranding of such article under the provisions of this act, then there shall be no publication of either the name of the manufacturer or dealer or of the name of the brand of the article until after a trial and a verdict of guilty as herein provided. And provided further, that where prosecution is made for a violation of any of the provisions of this act, no official publication shall be made of the result of the inspection and analysis until the matter has been finally adjudicated, and in case of appeal, by the court of last resort.

11. Said experiment station shall receive \$7.50 for the analysis or examination of any sample of food or drug taken or submitted in accordance with this act and expenses for procuring samples of food and drugs and in making inspections into the conditions of and wholesomeness and purity of the food produced, manufactured or sold in food factories, grocery stores, bakeries, slaughtering houses, dairies, milk depots, or creameries, and all other places where foods are produced, prepared, stored, kept or offered for sale; for studying the problems connected with the production, preparation and sale of foods for expert witnesses attending grand juries and courts; clerk hire and all other expenses necessary for carrying out the provisions of this act, provided the total expense from all sources shall not exceed in any one year thirty thousand dollars. The board of control of said experiment station shall furnish to the auditor of public accounts an itemized statement of the expenditures of money under this act. The expenditures reported to the auditor shall be paid by the commonwealth to the treasurer of the experiment station upon the written request of the board of control of said experiment station and the auditor for the payment of same is directed to draw his warrant upon the treasurer, as in all other claims against the commonwealth.

12. When any manufacturer shall offer any article of food or drug for sale in this state he shall file with the director of the said station when requested by him the name of the brand, the name of the product, the place of its manufacture or preparation and a true copy of all labeling used thereupon. Failure to so file

within thirty days shall be punished as provided in Section 1 of this act.

13. In all prosecutions under this act the courts shall admit as evidence a guaranty which has been made to the holders of the guaranty by any manufacturer and wholesaler residing in this state to the effect that the product complained of is not adulterated or misbranded within the provisions of this act, and said guaranty properly signed by the wholesaler, jobber or manufacturer or other party residing within this state from whom the holder of the guaranty may have purchased the article or articles complained of and containing the full name and address of the party or parties making the sale of such article to the holder of the guaranty, and in the absence of any proof that the article or articles complained of were adulterated or misbranded after they had been received by the holder of the guaranty shall be a bar to prosecution of the holder of such guaranty under the provisions of this act.

14. All acts or parts of acts inconsistent herewith are hereby repealed, but this said act shall not be construed to repeal Chapter 48 of the Acts of the General Assembly of 1906, entitled "An act to regulate the sale of concentrated, commercial feeding stuffs, defining same and fixing the penalties for the violations thereof." So much of this act as relates to drugs and liquors shall not take effect until on and after January 1, 1909.

Approved March 13, 1908.

Foregoing is a true copy.

W. S. BALL.

ACTIVITY IN WHISKY AND MACARONI.

The following letters have been sent out by Dr. Winton, Chief of Chicago Laboratory, U. S. Department of Agriculture, for the information and guidance of importers:

Gentlemen:

I am instructed to inform you that this department in a short time will undertake the inspection of distilled spirits entered at the several ports for the purpose of determining whether they conform to the decision of the attorney general, a copy of which decision I am sending you enclosed herewith. It is proposed to determine the following points:

First—Is the spirit in question a straight distilled spirit, unrectified, unmixed and untreated?

Second—Has it been mixed with any so-called neutral spirit, cologne spirit, potato spirit, or other distilled spirit in whisky?

Third—Has it been mixed with other whiskies, in other words, is it or not a blend?

Importers should inform their foreign agents that it is advisable to give certificates in connection with the shipments covering the character thereof.

Gentlemen:

Your attention is called to a recent ruling of this department which forbids the use in imported food products of coloring matters alleged to have conditional properties when such matters impart an artificial color to the product and thereby conceal damage or inferiority. Importers should, therefore, understand that in the future macaroni, spaghetti and vermicelli, colored with saffron, must be marked "artificially colored."

**BY THE PRESIDENT OF THE UNITED STATES
OF AMERICA, A PROCLAMATION.**

Whereas the Government of the United States of America and the Government of the French Republic have entered into an additional Commercial Agreement, signed on the 28th day of January, 1908, by which the application of the minimum rate under the third section of the Tariff Act of the United States, approved July 24, 1897, to champagne and all other sparkling wines is provided for certain specific concessions in favor of products of the United States, including Porto Rico, which concessions, in the judgment of the President, are reciprocal and equivalent:

Therefore, be it known that I, Theodore Roosevelt, President of the United States of America, acting under the authority conferred by said Act of Congress, do hereby conditionally suspend, from the first day of February, 1908, and during the time and in accordance with the terms of the aforesaid Additional Agreement signed January 28, 1908, the imposition and collection of the duties imposed by the first section of said act upon the articles hereinafter specified; being the products of the soil and industry of France; and do declare in place thereof the rates of duty provided in the third section of said act to be in force, as follows:

On champagne and all other sparkling wines, in bottles containing not more than one quart and more than one pint, six dollars per dozen; containing not more than one pint each and more than one-half pint, three dollars per dozen; containing one-half pint each or less, one dollar and fifty cents per dozen; in bottles or other vessels containing more than one quart each, in addition to six dollars per dozen bottles on the quantities in excess of one quart, at the rate of one dollar and ninety cents per gallon.

In testimony whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington, this twenty-eighth day of January in the year
[SEAL.] of our Lord one thousand nine hundred and eight, and of the Independence of the United States the one hundred and thirty-second.
THEODORE ROOSEVELT.

By the President:

ELIHU ROOT, Secretary of State.

The government of the United States of America and the government of the French Republic, considering it appropriate to supplement by a new additional agreement the commercial agreements signed between the two countries, at Washington, on May 28, 1898, and August 20, 1902, respectively, have appointed as their plenipotentiaries, to-wit:

The President of the United States of America, the Honorable Elihu Root, Secretary of State of the United States; and

The President of the French Republic, His Excellency J. J. Jusserand, Ambassador of the French Republic to the United States of America,

Who, after an exchange of their respective full powers, found to be in due and proper form, have agreed upon the following articles:

ARTICLE I.

It is agreed, on the part of the French government, that the application of the duties of the general tariff to coffee, cacao, chocolate, vanilla and other food products known in the French tariff law as "*denrees coloniales de consommation*," except sugar and its by-products and tobacco, products of the United States,

including Porto Rico, shall be conditionally suspended and that the said products shall be admitted into France and Algeria at the rates of the minimum tariff or at the lowest rates applied to the like products of any other foreign origin.

In addition, mineral oils from the United States and coming under the decree of July 7, 1893, shall upon entry into France and Algeria enjoy the benefits of the lowest rates of duty.

But it is expressly understood that these concessions may be withdrawn in the discretion of the President of the French Republic whenever additional duties beyond those now existing and which may be deemed by him unjust to the commerce of France shall be imposed by the United States on products of France.

ARTICLE II.

It is reciprocally agreed on the part of the United States, in accordance with the provisions of Section 3 of the United States Tariff Act of 1897, that the rates of duty heretofore imposed and collected, under the said act, on champagne and all other French sparkling wines upon entering the United States and the Island of Porto Rico shall be conditionally suspended and, instead, the following duties shall be imposed and collected, to-wit:

On champagne and all other sparkling wines, in bottles containing not more than one quart and more than one pint, six dollars per dozen; containing not more than one pint each and more than one-half pint, three dollars per dozen; containing one-half pint each or less, one dollar and fifty cents per dozen; in bottles or other vessels containing more than one quart each, in addition to six dollars per dozen bottles on the quantities in excess of one quart, at the rate of one dollar and ninety cents per gallon.

But it is expressly understood that this concession may be withdrawn in the discretion of the President of the United States whenever additional duties beyond those now existing and which may be deemed by him unjust to the commerce of the United States shall be imposed by France on products of the United States.

ARTICLE III.

It is further agreed that, inasmuch as complaints have arisen in both countries regarding the effect of the regulations in force in the respective countries affecting the admission of each other's products, and to the end that if there be in the regulations of either country any provisions which unnecessarily restrict trade, such provisions may be modified, and the cause of complaint removed, a commission of three experts shall be appointed by the government of the United States and a like commission of three experts shall be appointed by the government of France. Such commissions shall in conference each with the other inquire into and ascertain fully the existing conditions in each country as bearing upon the necessity of the regulations affecting the trade of the other country and as bearing upon the practicability of reciprocal tariff concessions. Each commission shall report to its own government thereon.

It is further agreed that upon the basis of the report so made the two governments shall enter upon an exchange of views to the end that if possible all cause of complaint in their respective regulations regarding the admission of any of the products of either country to the other may be removed.

ARTICLE IV.

This additional agreement shall take effect and be in

force on and after the first day of February, one thousand nine hundred and eight, and shall continue in force so long as the agreements signed on May 28, 1898, and August 20, 1902, shall remain in force.

Done in duplicate in English and French texts at Washington, this twenty-eighth day of January, one thousand nine hundred and eight.

ELIHU ROOT.
JUSSERAND.

RESOLUTIONS ADOPTED AT THE 18th ANNUAL CONVENTION OF MISSOURI STATE DAIRY ASSOCIATION.

We, the State Dairy Association of Missouri, assembled in eighteenth annual convention, and representing 25,000 dairy farmers in Missouri, hereby resolve—

First. We thank the Commercial Club for their liberal financial assistance.

Second. We wish to express our appreciation to the State Agricultural College for the most elegant banquet served us; for the excellent program, and are not unmindful of the efficient service rendered by the university girls.

Third. We wish to express our obligation to the State Board of Agriculture for their financial assistance, and to the Hon. Geo. B. Ellis, secretary, for his generous efforts in behalf of our meeting; and,

Fourth. We recognize that the Agricultural College is handicapped for lack of proper buildings and appreciate the wisdom of the recent legislature in appropriating money for the erection of a large central agricultural building, and urge that immediate steps be taken by the board of curators to hasten its construction.

Fifth. We appreciate the great usefulness of the Department of Home Economics in our Agricultural College and herewith express the hope that a suitable building for this work will be provided for by the next legislature.

Sixth. We appreciate the great services of the Agricultural College to the farmers of the state, yet we realize also that out of the 100,000 boys on the farms of Missouri who were last fall of proper age to attend an agricultural school, less than 300 individuals availed themselves of the privileges of our excellent college of agriculture. What is the matter? An agricultural high school is needed; one which can be entered direct from the country schools and which teaches all the rudiments of scientific agriculture and home economy. We therefore do commend the stand taken by the State Board of Agriculture in regard to the matter, and respectfully and most earnestly urge the board of curators of the university to take such action as is necessary to start such a school under the Agricultural College by the beginning of the next school year.

Seventh. We approve the work undertaken by the U. S. Dairy Division and favor its enlargement into a bureau and respectfully ask the Secretary of Agriculture and the Congress of the United States to look into the merits and needs of this large work.

Eighth. We note with satisfaction the growth and development of the Dairy Department of the university, especially along the line of stock and experimental work. We find the greatest need of this department at present to be a suitable barn. For the fourth time this association calls the attention of the board of curators to the fact that the barn provided for the dairy herd is not suited for this purpose. It lacks ventila-

tion and is not constructed so that it is possible to keep the sanitary conditions as perfect as they should be kept. We doubt if there is a herd of dairy cattle of equal value in the state kept in as inferior a barn.

Ninth. We realize that the disease tuberculosis is thoroughly distributed over the state; that it is to be found both in beef and dairy herds; that it is spreading; that it constitutes a danger both to human health and to the stock raising industry of the state. Therefore we demand that a law be passed giving the state veterinarian authority to administer the tuberculin test whether the owner of the stock be willing or not, and providing that the owner be properly reimbursed out of the state treasury for all stock condemned.

Tenth. We realize that the expense of attending the State Dairy Association is the cause of keeping many, in the remote parts of the state, from being present; and realizing the need of reaching these people with the good things we enjoy here, we resolve that there be formed four district dairy associations, one for each quarter of the state, said association to be under the guidance of the state association and to receive such aid on the program from our state instructors as is possible for them to give, believing in this way we can reach a large majority of our dairy farmers who have not attended our state association convention.

D. A. CHAPMAN, Warrensburg, Mo.
MARSHALL GORDON, Columbia, Mo.
C. J. JONES, Roanoke, Mo.

DR. WILEY AND OYSTERS.

For some time dealers in oysters all over the country have been concerned in a conclusion reached by Dr. Wiley, chief chemist of the Department of Agriculture at Washington, as to the wholesomeness of oysters as a food product. The conclusions of the professor were so at variance with apparently well established facts that the oyster men all over the country uttered a protest.

One of his statements was: "If oysters are properly packed and kept cold and properly fed, they can be shipped for eight or ten days without danger. I took with me across the ocean a barrel of oysters, and I fed them every day corn meal gruel and salt, and the steward came to me and said: 'I wish you would come down with me and notice those oysters. Every time I feed them I can hear them chew.' And when you put your ear down to the barrel you could hear them opening their shells and closing them."

The idea of feeding oysters by sprinkling corn meal on them after they are taken out of their natural element, and hearing them "chew" is absolutely funny to anyone of ordinary sense, whether acquainted with oysters or not. Anyone who is acquainted with them knows that if oysters have been out of water for a few days they will shut their shells, thereby causing a little noise if you sprinkled sawdust or sand on them, just as much as they will if you sprinkle corn meal. The idea of feeding them in this way is an ignorant notion which prevailed in the interior 50 years ago, and was long since discarded.

This official utterance did no particular harm, but another statement which he made probably injured the oyster industry throughout the country to an amount of at least a million dollars. He said that "any oyster an hour after it is opened is dead and not good," and made several other statements, according to the official printed report of the hearing, which are absolutely

without foundation, and which he has since distinctly contradicted in a book published by him.

The oyster growers of Boston, Providence, New Haven, New York, Crisfield, Baltimore, Norfolk, Cambridge, and, in fact, throughout the country, protested against Dr. Wiley's attack and showed that he had done great injury to the industry without any warrant in the facts.

Popular notions about all subjects come in waves. The utterances of Dr. Wiley and of some sensational magazine and newspaper writers have excited the fears of timid people against eating oysters, by unfounded assertions against their healthfulness. Indeed, dealers in Bay City as well as elsewhere assert that their trade has been injured to some extent by reason of these assertions. Science now contradicts this sensational humbug about oysters being unwholesome.

The celebrated bacteriologists of the health department of the city of Chicago have recently made a searching bacteriologic examination of a great number of every kind of oysters found on the Chicago market, and after a most exhaustive examination, these skilful scientists declare that they found neither typhoid nor colon bacilli, but more than this, they state that "from experiments performed it appears that oysters possess an inherent power to directly destroy typhoid bacilli."

Thus it appears that while typhoid bacilli have been found in multitudes of cases to live and multiply in milk and water, they are not even found in oysters, on thorough examination.

It is certain, then, that oysters are not only a palatable and nutritious food, but are also safe and wholesome to a greater degree than either milk or water, which are so universally partaken of.

A recent issue of Leslie's Weekly contained a careful review of pure food matters by Hon. Hugh Gordon Miller, of New York. He showed conclusively how a pure food law, which is so necessary to the welfare of the people, has been misconstrued and misused by an injudicious, fanatical bureaucrat, meaning Prof. Wiley.—New Haven Leader.

BILL INTRODUCED IN OHIO TO AMEND THE ANTI-TRUST LAW.

(4427—1) Sect. 1. (Trust Defined.) A trust is a combination of capital, skill or acts by two or more persons, firms, partnerships, corporations or associations of persons, or of any two or more of them, *to effect, contrary to the public welfare*, either, any or all of the following purposes:

Provided, however, that nothing herein contained shall prevent or declare to be unlawful

1st. Organizations of labor and their reasonable trade agreement with employers relating to wages, hours of labor and conditions of employment.

2d. Associations of farmers, intended to secure a reasonable stable and equitable market for the products of the soil, free from fluctuation due to speculation.

3d. Reasonable business and industrial agreement seeking to prevent ruinous competition and rate cutting and to protect against unlawful monopoly or tendency to monopolize.

PROGRESS OF FOOD LEGISLATION IN OHIO.

(BY SPECIAL CORRESPONDENT, AMERICAN FOOD JOURNAL.)

The Food and Drug Bill, known as Senate Bill 414, introduced by Senator Crist, passed the Senate March 10th. This same bill passed the Senate about two weeks ago, but was reconsidered and referred to Committee on Medical Colleges, where considerable influence was brought to bear upon the committee to amend and cut out certain portions. This bill was drawn up by the Food and Dairy Commission and was more acceptable to the drug, grocery and proprietary interests than a similar bill introduced by Senator Harper. Senator Harper's Bill was almost a counterpart of the Federal Food and Drug Act. The only change made by the committee in Senator Crist's bill was the clause covering a drug sold under a coined name which does not contain some ingredient suggested by such name or contains only an inconsiderable quantity. This was cut out when the bill was upon its passage. By so doing I am of the belief that Ohio is taking a step backward in food and drug legislation. Some of the worst frauds on the market would come under this category. Castor oil pills without castor oil, wines of cod liver oil without cod liver oil, rattlesnake oil sans rattlesnake oil, sulphur bitters sans sulphur, Epsom salts tablets sans Epsom salt in medicinal quantity to give the above the characteristic property under which they are all sold. Every day brings the addition of new fakes of this kind and unless the House of Representatives puts the clause back again Ohio will have to take a back seat.

The Grocers' Association tried to insert the guarantee clause but did not succeed. The Confectioners' Association through a Mr. Lannen of Chicago and Mr. Pfaff of Cincinnati wished to insert a provision under the confectionery clause providing for the use of harmless colors of any kind for coloring only and not for fraudulent purposes but they failed in their efforts.

Mr. Bishop has introduced an ice cream bill in the House (House Number 1123). It was given a hearing last night and about twenty or thirty members of the ice cream manufacturers association were present advocating the use of gelatine and a nine per cent standard with a one per cent shrinkage. This would be equivalent in practice to an eight per cent standard for frozen cream. Ice cream standard to be fourteen per cent. The compounded article occupied their entire attention, however. There will be another hearing next Thursday night, March 19th. The Bishop bill does not seem to have much chance of ever seeing the walls of the House. Unless the Food and Dairy Commission draws up a measure for ice cream and pushes the matter along there is not much chance of this legislature doing anything along this line.

There are now over 1,200 bills introduced in the Ohio legislature, and as the present rate is about three bills passed a day there is a lot of "love's labor lost."

The slop feeding question has been worrying Cincinnati distilleries a great deal. A bill was introduced in the Senate prohibiting the feeding of wet distillery waste to milk cows. This bill passed the Senate and was taken over to the House, where it was referred to the Committee on Agricultural Interests. An attempt was made by the distillery interests to have the measure referred to the Committee on Cities, where they thought they would have some show, but with the

farmer committee they have about thrown up the sponge, and the bill is expected to be placed on the calendar for passage any day. The contention is that the slop is not so harmful but the filth that goes with the feeding of it. The distillery faction claim this not their fault but the fault of the health officer in not compelling the dairies to keep clean.

DR. WILEY'S UNDOING.

A pill of saccharine, one of the wholesome coal-tar products, is the immediate cause of the undoing of Dr. Harvey W. Wiley, hitherto undisputed pure food authority, if the assumption that the President's prospective appointment of a board of five eminent chemists is to be regarded as the downfall of Wiley. President Roosevelt is very fond of that kind of pills.

Some time ago Dr. Wiley and several other pure food people were at the White House discussing the use of the legend "sweetened with saccharine," which sometimes is found on cobs of sweet corn.

"Why, the word itself is an adulteration," exclaimed Dr. Wiley for the benefit of the President. "Any man reading that would infer that the corn was sweetened with sugar."

"Nobody but a born idiot would infer anything of the kind," replied the President, who added that he ate saccharine and is very fond of it. He got accustomed to using it while on hunting trips as a substitute for sugar.

Some time thereafter Dr. Wiley reiterated his assertion about the substance and what the ordinary man would infer from seeing the legend on a can of corn. The reiteration reached the ears of President Roosevelt about the time the pickle and catsup makers were telling him that to deprive them of the right to use benzoate of soda would ruin their business. Soon thereafter the President began having doubts about the doctor's expertness in the pure food line.

The order directing the appointment of the board of expert chemists has created a big stir here because "pure food" and "Wiley" have been interchangeable terms.

The unvarnished truth is that the Government lawyers whose duty it is to enforce the pure food law dare not put the doctor on the witness stand as an expert in a number of matters, because the record shows that he has changed his views without apparent reason. The findings of five eminent chemists, it is believed, would have weight with the most critical jury on earth.

The pathetic side of Dr. Wiley's undoing has been much commented upon here. There is no question but that Dr. Wiley deserves credit for the enactment of the pure food law because he has been fighting for it for fifteen years or more. It is regarded as the irony of fate that the questions arising from its enforcement should have contributed to his virtual supersession.

Secretary Cortelyou owes the pure food law a grudge, too, because it was for not enforcing the Attorney General's definition of what is whisky that led many people to believe the reports that Secretary Cortelyou was aiding and abetting a disloyal scheme to use the Roosevelt sentiment for his own political benefit. The President issued a savage order directing Mr. Cortelyou to follow the Bonaparte definition.—Pittsburg Journal.

A LETTER TO COMMISSIONER WASHBURN

Mr. R. M. Washburn,
State Dairy and Food Commissioner,
Columbia, Mo.

Dear Sir: We notice in the Food Law Bulletin of February 24th, your Bulletin No. 1 on "Vinegar," and take the liberty of calling your attention to a few facts of which you seem to be unaware.

(1) Vinegar is not "the product formed by the acetous fermentation of an alcoholic liquid under the influence of an organism existing in the mother of vinegar," but of an organism existing in the air.

(2) Cider vinegar is not the principal vinegar of commerce. It constitutes less than 30 per cent of the whole amount of vinegar sold, is not used by picklers or packers of meat, because it is not pure enough to preserve their products, and is made from a grade of apples which would prevent its sale altogether if Sec. 6 of the U. S. Food Law were strictly enforced. That defines an article of food to be adulterated "if it consists in whole or in part of a filthy, decomposed or putrid animal or vegetable substance." Distilled vinegar has at least three times the sale of cider vinegar, notwithstanding the absurd legislation against it, and this use is largely compulsory because of its purity, produced by distillation.

(3) The prohibition of coloring does not protect cider vinegar. It merely forces into use inferior fermented, not distilled articles, from the refuse of beet sugar refineries, cane sugar refineries, glucose, grape sugar, etc., which, because they are not distilled and purified have natural color. These could not compete with the colored distilled article in quality or price, but they do compete with the cider vinegar successfully.

(4) Prohibition of what is called adulteration does not prohibit. The law has erected a false and unscientific standard of purity and most manufacturers and dealers in cider vinegar are keeping their brains busy devising methods of making that article with as small a proportion of rotten apple juice as possible and still comply with the legal requirements—and they are generally succeeding, for the law which makes "cider vinegar" the equivalent of "vinegar" excites derision and invites evasion, and is a standing reproach to our intelligence. Perhaps the new food laws which will bring with them scientific inquiry and experiment, will in time correct this mistake.

Would it not be wiser to allow the sale of "colored distilled vinegar" when truthfully branded and punish the man who sells it under some other name for his misrepresentation, even if the punishment be severe? You are now punishing a whole people by having foisted on them a variety of worthless articles which are bought because they are sour and have color.

Very truly yours,

A. P. CALLAHAN COMPANY,
A. P. Callahan, Treasurer.

TEST FOR PURE FOOD LAW.

A test case of great importance to the distilling industry will result from the seizure of nine barrels of whisky at H. C. Corbin & Co.'s warehouse in Cincinnati, Ohio. The seizure was made by the internal revenue department on the technical charge that the whisky contained caramel coloring contrary to the rulings of the board of food and drug inspection.

ILLINOIS BULLETINS.

Office of the Illinois State Food Commission, 1623 Manhattan Building, Chicago, Illinois.

"Coal tar dyes in food products now attract the consumer by their brilliant colors, but when it becomes generally known that these dyes disguise inferiority or, at least, add nothing to the value of the products and are possibly injurious to health, like the red flag of danger they will serve as a warning to the public."

BULLETIN No. 9.

THE USE OF ARTIFICIAL COLOR IN FOOD.

In Bulletin No. 2 of this department, attention has been called to the use of color in foods, particularly to the use of color in lemon extracts. The effect of this bulletin is seen in the changed appearance of many of the lemon extracts, for since its appearance many firms have ceased to use color in lemon extracts; and the colorless or nearly colorless extracts on the market are invariably found to be pure and of standard strength. Some of the manufacturers have been able to see that the argument in Bulletin No. 2 applied not only to lemon extracts but to all other extracts and foods as well—i. e., that this department holds that color in extracts and other foods always conceals inferiority or makes the article appear better or of greater value than it really is. These manufacturers have ceased to manufacture any artificially colored extracts. They have advertised the superiority of these uncolored extracts by such arguments as the following and their trade has increased: "They contain no coloring matter whatsoever except the color that is naturally extracted from the fruits in the process of manufacture, and we guarantee them to be *absolutely pure* and free from any foreign substance of any kind. This makes them somewhat different in color from those you have been accustomed to in some cases perhaps, but the very fact that they are different in appearance is an assurance to you that you are paying for the *genuine article*, and not for *injurious dyes*. There is no need of coloring these extracts artificially, since in an extract it is the *flavor* and not the color that one desires, and we assure you that the flavor in all its deliciousness is there. The argument here presented by a large dealer and manufacturer showing the *uselessness and danger of added color* and the consequent superiority of extracts not artificially colored, is a *sound argument*. We recommend two things with reference to color in extracts and other foods.

1st. That all manufacturers cease to use artificial color in all foods.

2nd. That all retailers and consumers refuse to purchase extracts or other foods containing artificial color.

This department will prosecute all dealers selling extracts or other foods adulterated with coloring matter without a statement on the label that the same is "Artificially colored." Artificial and imitation extracts can be and are being made with all the delicacy of flavor and strength without the addition of color. Therefore they must be labeled "Artificially colored" when color is added as well as being labeled Artificial or Imitation Extracts.

The consumer can protect himself by reading the label, by reading all of the label, and by refusing the extracts or other foods which are artificially colored.

This department cannot prosecute on the grounds that the color used is poisonous unless it can prove

that fact. It is difficult to prove this unless it can prove what the color is. The chemist cannot always do this and the *danger* lies in the fact that though poisonous color may be used in food, the guilty parties cannot always be brought to justice. This inability on the part of the chemist is due to the fact that there are so many hundreds of colors that the problem of separating and identifying the particular color is extremely difficult if only one color is used in a food. This difficulty is increased many times by the fact that the color used in food is often a mixture of two or more simple colors, and the amount of color used is so small in each sample that the difficulty is made many times greater.

In all food except confectionery color always conceals inferiority or makes the article look better or of greater value than it really is, or makes the article look like something it is not. This is sometimes difficult to prove, but the following instances will show some cases where it is self-evident.

Color in preserves conceals the presence of green or partially ripened fruit. Cherries, strawberries, etc., are colored so that they appear after they are several months old as if freshly packed. Canned peas colored with blue vitrol look as if they contained no dried and soaked peas. Catsups appear to have been made from the best selected ripe fruit when artificially colored. Manufactured articles containing artificial flavors are made to appear as if flavored with natural extracts when they are artificially colored; distilled vinegar is made to appear like cider vinegar; oleomargarine is made to look like butter; mixed jellies and jams, fruit butters and preserves, such as "apple raspberry jelly," "apple grape jelly," etc., are made to appear as if they contain more of the more expensive fruit than they really do contain. Artificial color makes it difficult, and in most cases impossible, to judge of the purity or value of the food.

It will be seen that in buying uncolored foods the consumer protects himself not only against the *danger* from "*poisonous dyes*," but also protects himself against fraud.

To thus protect himself the consumer must read all of the label and refuse articles of food that are marked "colored" or "artificially colored."

Confectionery when sold under the name of a distinctive flavor as "Raspberry Drops," etc., and colored artificially to resemble the fruit from which it derives its name, is also a fraud.

Color does not add to the flavor or to the food value of the article. The true value of a food *not* artificially colored can be better judged and the consumer is free from any danger from *injurious dyes*.

Some manufacturers claim that the public demand artificially colored foods. The consumer can easily prove this is false by refusing all foods marked "colored" or "artificially colored."

Of all the coal tar dyes the United States Department of Agriculture recognizes only seven as non-injurious; 107* Amaranth; 56* Ponceau 3 R.; 517* Erythrosin; 85* Orange 1; 4* Naphthol Yellow S.; 435* Light Green S. F. Yellowish; 692* Indigo Disulfonic acid.

Schultz-Julius Systematic Survey of the Organic Coloring Matters, published in 1904.

A. H. JONES, Commissioner.

T. J. BRYAN, State Analyst.

*Number of the dye as listed in A. G. Green's edition of

LABELS.

Rules For Labeling Adopted by the Illinois State Food Commission.

11. *Coloring Matter*, when added to any article of food (except butter and cheese), shall be clearly indicated on the front of the package, by the words "Artificially Colored," "Vegetable Coloring," etc.

12. *Extracts made of more than one principal* shall be labeled in a conspicuous manner with the name of each principal, or else with the name of the inferior or adulterant; and in all cases when an extract is labeled with two or more names, such names must be

The size of type shall be not smaller than eight-point (Brevier) caps in which this sentence is printed (Sec. 39).

2. The label shall be printed *plainly and legibly in English* with or without the foreign label in the language of the country where the product is produced or manufactured (Sec. 39).

3. Every manufactured article of food and all food sold in package form shall be labeled, marked or branded with the *true, distinctive name of the article*. "Sirup," "Table Sirup," "Salad Oil," etc., are names for classes of food, but are not the true name of the article.

4. Every manufactured article of food and all food sold in package form shall be labeled, marked or branded either with *name* of the manufacturer and the *place of manufacture*, or the *name and address* of the packer or dealer who sells the same, but mixtures or compounds which may be now, or from time to time hereafter known as articles of food under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article, shall be accompanied on the same label or brand with a statement of the place where the article has been manufactured or produced.

5. *Renovated Butter* shall be plainly so branded with Gothic or bold-face letters at least three-fourths of an inch in length, on the top and sides of each tub or box, or pail, or other kind of case or package, or on the wrapper of prints or rolls, or bulk packages in which it is put up. If such butter is exposed for sale uncovered, or not in a case or package, a placard containing the label so printed shall be attached to the mass of butter in such a manner as to easily be seen and read by the purchaser.

6. *Oleomargarine*. Every substitute for butter shall be marked by branding, stamping or stenciling upon the top or side of each box, tub or firkin or other package in a clear and durable manner, *Oleomargarine*, *Butterine*, *Substitute for Butter* or *Imitation Butter*, in plain Roman type each of which shall not be less than three-quarters of an inch in length.

7. *Lard Substitutes* must be labeled as provided in Section 25 of the law and shall bear the *name of the manufacturer* and the location of the manufactory.

8. *Compounds* shall be labeled with the true name of the ingredients, as "Maple and Cane Sirup," etc., and the ingredients which predominate shall be named first.

9. All *soaked* or *bleached goods*, or goods put up from products dried before canning, shall be plainly marked, stamped or labeled as such with the words "soaked" or "bleached goods." The term "soaked" need not be used in connection with names of food which are always dried goods soaked, as "Baked Beans."

10. Cartons shall be labeled according to the same principle as bottles, cans, etc.

in a conspicuous place on said label, and in no instance shall such mixture be called imitation, artificial or compound, and the name of one of the articles used shall not be given greater prominence than another.

13. *Imitation Extracts*. All extracts which cannot be made from the fruit, berry, bean or other part of the plant, and must necessarily be made artificially, as raspberry, strawberry, etc., shall be labeled "imitation" in letters similar in size and immediately preceding the name of the article.

14. *Extracts below standard* shall be labeled " $\frac{1}{2}$ Standard Strength," " $\frac{1}{3}$ Standard Strength," etc., as the case may be. Only common fractions shall be used and the statement of strength shall immediately precede the name of the extract.

15. *Preservatives* other than salt, sugar, vinegar, spices and their essential oils, wood smoke, edible oils and fats, and alcohol, when used in food, shall be stated on the label on the front of the package, giving the kind and per cent used.

16. *Deceitful and suggestive names and designs* shall not be used. No design representing a superior ingredient, its source, or a process of its manufacture, shall appear on the label unless the inferior ingredients are likewise so represented in an equally prominent manner.

17. *Distilled Vinegar*. All vinegar made wholly or in part from distilled liquor shall be branded "Distilled Vinegar," and shall not be colored in imitation of cider vinegar.

18. *Vinegar to be Branded*. All vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded with the name of the fruit or substance from which the same is made. All vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made and shall contain no foreign substance. Vinegar made from dextrose (corn sugar) is misbranded when labeled "Grape Sugar Vinegar," and shall be labeled "Corn Starch Sugar Vinegar" or "Corn Sugar Vinegar."

19. *Baking Powder* shall contain not less than ten (10) per cent available carbon dioxide and the common names of all the ingredients shall be printed on the label. Alum is the common name for the aluminum compounds, and acid phosphate or calcium acid phosphate are the common names of the last named substance.

20. *Skim Milk* shall not be sold without first attaching to the can, vessel or other package containing said milk, a tag with the words "Skim Milk" printed on both sides of said tag in large letters, each letter being at least three-fourths of an inch high and one-half inch wide. Said tag shall be attached to the top or side of said can, vessel or package where it can be easily seen.

21. *Vehicles to be Marked*. Any person, firm or corporation who shall in any of the cities, incorporated towns or villages of this state which contains a population of 5,000 or over, engage in or carry on a retail business in the sale or exchange of, or any retail traffic in milk or cream, shall have each and every carriage or vehicle from which the same is vended, conspicuously marked with the name of such vendor on both sides of such carriage or vehicle.

22. The use of *alum* in pickles or any other food

product shall be stated on the label, using the common name alum.

23. The *grade or quality* of an article of food shall not be falsely represented. Such terms as double, triple, etc., shall mean two or three times the food value required by the standard.

24. The use of saccharin in food products shall be indicated on the label by the statement, "*Saccharin Substituted for Sugar*," immediately following the name of the food.

25. Jellies, Jams, Fruit Butters, Preserves, etc., containing glucose and no cane sugar shall be labeled "*Glucose Fruit Jelly*" or "*Corn Sirup (Fruit) Jelly*," etc.

26. Jellies, Jams, Fruit Butters, Preserves, etc., containing glucose and sugar shall be labeled "*Glucose (or Corn Sirup) and Cane Sugar (Fruit) Jelly*," etc.; or shall be labeled "*Compound (Fruit) Jelly*," and the maximum percentage of glucose present shall be stated on the label immediately following as "*Compound Apple Jelly Containing 30% Glucose*."

NORTH DAKOTA FOOD BULLETINS.

Food Department—Agricultural College.

BULLETIN NO. 1.

Ice Cream Notice.

Of late there have been numerous requests for information regarding ice cream, and what would be classed as legal in this state. The standard adopted by the Department of Agriculture (Circular No. 19) as the National standard is also the legal standard in North Dakota and is as follows:

Ice Cream.

First—Ice cream is a frozen product made from cream and sugar, with or without a natural flavoring, and contains not less than fourteen (14) per cent of milk fat.

Second—Fruit ice cream is a frozen product made from cream, sugar and sound, clean, mature fruits, and contains not less than twelve (12) per cent of milk fat.

Third—Nut ice cream is a frozen product made from cream, sugar, and sound non-rancid nuts, and contains not less than twelve (12) per cent of milk fat.

The foregoing definitions are so framed as to exclude from the articles defined substances not included in the definitions.

The use of gelatin, gums and cream thickeners or substitutes are prohibited in ice cream. Several of the ice cream thickeners recently examined have been found to contain a chemical preservative rendering the product in direct violation of the Food Law. Other thickeners have been found to contain an added color giving a false impression regarding the product.

Where ice cream is sold full measure must be given, and the size of the container must be shown on the face of the label.

Please take notice that the inspectors are instructed to see that the Food Law, as it applies to ice cream, is strictly enforced.

(Signed) E. F. LADD,
Food Commissioner.

Fargo, N. D., March 10, 1908.

BULLETIN NO. 2.

Formaldehyde Notice.

Several samples of formaldehyde have recently been examined, as furnished by jobbers, and found to be low in strength. Druggists and dealers in formaldehyde should see that they have a guarantee, and that the product complies with the requirements of the Formaldehyde Law, and contains not less than 38 per cent by weight of formaldehyde.

My advice is to purchase of dealers of recognized standing. Druggists should send samples to the Chemical Department, Agricultural College, N. D., for free analysis to determine the true strength before offering the same for sale.

If your formaldehyde is badly polymerized, that is, heavy or milky in appearance, do not sell it to the farmers for treating wheat for smut. It will not destroy the smut and may kill the wheat germ.

The containers for formaldehyde should be well shaken occasionally so as to redissolve any which has become polymerized. Formaldehyde which forms a clear solution does not lose strength on keeping, even though not tightly corked. Farmers using large quantities should send samples for analysis, and buy only of reliable dealers.

In sending samples, be sure to have the name and address on the bottle. Many fail to do this and receive no report, for we are not able to trace the sample.

(Signed) E. F. LADD,

Food Commissioner.

Fargo, N. D., March 10, 1908.

BULLETIN NO. 3.

Gelatin Ice Cream.

Inasmuch as a number of manufacturers of ice cream, who are shipping to different points in the state, have claimed that it is impracticable for them to prepare and ship ice cream without the use of a thickener, the Department makes the following ruling:

Gelatin Ice Cream.

Gelatin ice cream is a frozen product made from cream and sugar, with or without a natural flavoring and containing not less than fourteen (14) per cent of milk fat, and not more than five ounces of gelatin for each ten gallons.

The gelatin to be used in the foregoing ice cream must be pure and free from chemical preservatives or sulphites.

Each and every package of ice cream must be clearly and distinctly labeled, as it is shipped out, to show that it is gelatin ice cream, and each and every container in which ice cream is sold to the consumer must bear the same statement clearly and distinctly set forth, separate from any other facts upon the face label.

The sale of gelatin ice cream without proper labeling will be treated as a violation of the Food Law.

Where cream deficient in milk fat is used the per cent in the finished product must be shown, clearly set forth on the face of each container.

This provision only applies to products which are to be shipped, and not produced for consumption in the immediate vicinity of the factory.

(Signed) E. F. LADD,

Food Commissioner.

Fargo, N. D., March 10, 1908.

MISSOURI FOOD DEPARTMENT BULLETIN I. VINEGAR.

Vinegar is the product formed by the acetous fermentation of an alcoholic liquid under the influence of an organism existing in the "mother of vinegar." Formerly most of the vinegar was made from the juices of fruits, and other liquids containing sugars, which had previously undergone alcoholic fermentation. In recent years, however, much of the vinegar has been made directly from dilute alcohol.

In promulgating standards of purity, the United States Department of Agriculture recognizes the following kinds of vinegars:

- Cider or Apple Vinegar.
- Wine or Grape Vinegar.
- Malt Vinegar.
- Sugar Vinegar.
- Glucose Vinegar.
- Spirit, Distilled or Grain Vinegar.

The name "vinegar" without any qualifying words means at all times cider vinegar. (See the law.)

Cider vinegar, the principal vinegar of commerce in the United States, was formerly made by the slow process of fermentation of apple cider in casks or barrels. This was a lone process often requiring several years for completion. It was also a somewhat unsatisfactory method on account of lack of proper control of temperature, as a result of which much of this product often came into the market not far removed from the "hard cider" stage, and deficient in acid strength. Modern quick process vinegar has superseded the old method and complete fermentation is now obtained in 48 hours. The flavor of Cider Vinegar is partly due to the minute particles of the apple pulp remaining in the vinegar. To call these character giving particles "impurities" is incorrect.

Cider vinegar is naturally of an amber color, and contains at least 1.60 per cent of apple solids, and must have not less than 4 per cent acetic acid.

Wine vinegar is of a color depending upon the source of the wine. This vinegar contains at least 1 per cent of grape solids and 4 per cent of acetic acid.

Malt vinegar, the principle vinegar of England, is of a dark brown color and contains more solids than either of the above, the lowest legal being 2 per cent solids and 4 per cent acetic acid.

Sugar vinegar is made from sugar, syrup, molasses, etc., its color depending upon the source of the sugar and the amount of refining to which it has been subjected. It must have not less than 4 per cent acetic acid.

Glucose vinegar is made from glucose (usually the solid form popularly known as "Grape sugar") and is usually of a very light straw color. It must have not less than 4 per cent acetic acid.

Distilled vinegar is made from dilute alcohol and is as colorless as pure water. It must have not less than 4 per cent acetic acid. Distilled vinegar is pure, as pure as any food can be, and as healthful as any vinegar of equal strength.

Distilled vinegar, while it is a legitimate article, has been the subject of much discussion in recent years, chiefly because it has "masqueraded under false colors," so to speak. When sold without artificial color, it has been given the name of "white wine" vinegar, a gross misrepresentation. When distilled vinegar is artificially colored, it takes on a rich amber color and looks like cider vinegar. This is a fraud,

pure and simple, and has been legislated against by a majority of the states. Because of the suspicious way in which this article has been put upon the market the people have come to feel that it must be injurious. There is now little if any foundation for this prejudice. This vinegar is used very extensively in Europe and is, in this country, the favorite with the picklers.

Investigation by this department shows that more than one-half of the vinegar having the color of, and selling for apple vinegar in this state last summer and fall was distilled vinegar with an artificial color.

Under Sub section 4 of Section 4 S. B. 47, 44th General Assembly, this department has ruled against all artificial color in vinegars. The retailers were given until April 1, 1908, to dispose of stock on hand; after that time its sale is prohibited.

Let every food be sold for what it is, then let the law of supply and demand regulate the price.

R. M. WASHBURN,

State Dairy and Food Commissioner.

Columbia, Mo., Feb. 10, 1908.

BULLETIN II.—FRAUDULENT SALE OF OLEO-MARGARINE.

This bulletin is issued for the purpose of calling the attention of the public in general and the housewives of the city of St. Louis in particular to one form of food fraud which is being practiced to a very great extent.

For many years there have been laws in this state forbidding the sale of oleomargarine as butter, but these laws have been most grossly violated. Frequent and persistent attempts have been made to control this traffic but so far with little avail. Now the new pure food law comes in and reiterates: A food is misbranded if it is an imitation of or is offered for sale under the distinctive name for another article. A food is adulterated if it is colored or stained in a manner whereby damage or inferiority is concealed.

The residence district of St. Louis is now being imposed on by fake butter peddlers. The "butter" sold by practically all peddlers is not only not butter but is also colored to deceive. The color used in practically all cases is a coal tar color which has been forbidden in butter as not in accordance with the pure food law. The housewife can usually detect this fraud by heating to the boiling point a little in a spoon. If the fat melts down clear and sputters and snaps it is oleomargarine. If it froths up it is butter. The oleomargarine will, when heated, give off a tallowy odor. Butter will give off a butter odor.

Peddlers of this fake butter usually go about in rather poor wagons upon which there is no sign or name establishing responsibility. If the consumer could but see the filthy, utterly horrid conditions under which most of this "moonshine" oleomargarine is handled she would never buy another pound: Dark filthy basements, hay lofts, horse stalls, and the like are the places these illegitimate food venders choose in which to work over the white oleomargarine, adding the color and packing in pound prints.

This article is then sold in violation of both the State and the Federal law. It is delivered with a very faint brand upon the paper or with none at all.

The housekeepers are advised to look at the goods in the delivery wagon. There the name "oleomargarine" will usually be found on every package.

For their own protection consumers are advised to

test by heating the "butter" they obtain. They are also reminded that the groceryman is infinitely more responsible and from him they can obtain butter or oleomargarine according to their choice.

This Department recognizes full well that oleomargarine is not necessarily an unwholesome article of food, and when sold lawfully is a legitimate article of trade, and has no quarrel with any dealer who observes the law, but does propose to enforce the laws against the unlawful and fraudulent sale of oleomargarine.

R. M. WASHBURN,
State Dairy and Food Commissioner.
Columbia, Mo., Feb. 10, 1908.

BULLETIN III.—FARM PRODUCE.

The attention of the farmers of Missouri is called to that portion of the Pure Food Law found in subdivision 6, Sec. 4, S. B. 47, Session Acts, 1907, p. 238-242, and to Sec. 14 of the same act.

It is a grave offense to sell bad eggs; or milk or cream or butter which is dirty or was produced from a diseased cow, or is below grade, or to which a preservative has been added; or meat of animals which have died otherwise than by slaughter; or vinegar which is below standard; or fruit under false names as to variety or place of production; or to sell short measure or short weight food of any kind. The farmer is primarily a producer of food and must expect to abide by the food law, the same law that protects him when others sell to him. Copy of the law and food standards may be obtained by writing this office.

R. M. WASHBURN,
State Dairy and Food Commissioner.
Columbia, Mo., Feb. 15, 1908.

BULLETIN IV.—ANIMAL FOODS

Considerable complaint has been received regarding the purity of the mill feeds now offered for sale on the open market of the state. Investigation has shown that there is some cause for this complaint.

This bulletin is issued for the purpose of calling the attention of the feed manufacturers, millers and dealers and stock feeders, to Sec. 2, S. B. 47, Session Acts 1907, p. 239, which reads: "The term 'food' used in this act shall include all articles used for food, drink, confectionery or condiment, by man or animal, whether mixed, simple or compound." Sec. 4 and Sec. 7 will also prove of interest.

No standard for stock feeds having been adopted by the Missouri "Pure Food Bill," approved March 15, 1907, this department will be guided by the standards of composition universally recognized by the Agricultural Experiment Station authorities, a table of which standards is published in Farmers' Bulletin No. 22, U. S. Department of Agriculture, Washington, D. C., and in Henry's "Feeds and Feeding."

The term "bran" used without any qualifying word, will be construed as meaning clear wheat bran. If rye bran or corn bran be mixed with wheat bran the fact must be stated on the sack along with the percentage of each present. Whenever the composition of a feed is stated on the sack it must of course be truthfully stated.

A copy of the law may be obtained by writing this office.

R. M. WASHBURN,
State Dairy and Food Commissioner.
Columbia, Mo., Feb. 15, 1908.

RULINGS DAIRY AND FOOD DEPARTMENT, STATE OF MISSOURI.

RULING VI. Corn Syrup.

In reply to the many letters received relative to the proper labeling under the Pure Food Law, of the thick, viscous sirup obtained by the incomplete hydrolysis of the starch of corn, and composed essentially of dextrose, maltose, and dextrine; it is the opinion of this department that it is lawful to label this sirup as "corn sirup" and if to the corn sirup there is added a small percentage of refiners syrup, a product of the cane, the mixture, in our judgment, is not misbranded if labeled "corn sirup with cane flavor."

R. M. WASHBURN,
State Dairy & Food Commissioner.
Columbia, Mo., March 5, 1908.

RULING VII. Corn Sugar Vinegar.

There is on the market in this state a considerable quantity of a vinegar selling under the name "grape sugar" vinegar. Inasmuch as this vinegar is made from starch sugar, glucose, with corn as the original raw material, and is in no way related or associated with grapes, the name "grape sugar" is held to be misleading and deceptive and its use will be contested. In the opinion of this department this vinegar may be sold under the name "glucose vinegar," "starch sugar vinegar," or "corn sugar vinegar," at the option of the vendor, without offending the Pure Food Law of this state.

This ruling will go into effect for the manufacturers March 10th, 1908, for wholesalers and jobbers April 1, 1908, and for retailers October 1, 1908.

R. M. WASHBURN,
State Dairy & Food Commissioner.
Columbia, Mo., March 5, 1908.

FRENCH SEA FOODS.

MARENNES OYSTERS—APPEARANCE OF AMERICAN FISH.

Consul George H. Jackson, of La Rochelle, sends the following information concerning oysters and fish on the French coast:

The Marennes oyster is considered the most popular in France. The oyster parks are laid out in the space between the island of Oleron, the island of Aix, and the mainland. Each ebb tide permits the waters of the Sendre to flow over the beds. The bivalves are brought to this locality in large numbers from the breeding beds at Archeson. Here they are deposited in the mud to fatten and to take on the peculiar coppery tint and taste, which makes the green oyster of Marennes popular in France. According to the statistics of 1907, shipments of oysters from one of the two railway stations gave a total of 8,220 tons, which necessitated the use of 620 freight cars. The increase over 1906 was over 150 tons.

A number of fishes hitherto unknown in these waters, but well known on the Atlantic coast of the United States, have recently appeared, among the most numerous being the sheepshead and the bluefish. The appearance of this new sea food has caused considerable interest in the fishing industry. Up to the present time, however, I have only seen fish that are large and strong. The presence of shad is also greatly appreciated, but is due directly to the fish culture in the streams emptying into the Bay of Biscay. Shad bred in these waters apparently differ slightly in form and color from the American variety.

FOOD AND DRUGS ACT OFFICIALS REVERSING THEIR ARBITRARY RULINGS.

We have frequently commented on the arbitrary disposition manifested by the officials whose duty it is to administer the Food and Drugs Act, and have predicted that some of their rulings would be declared illegal, and of no effect by the first court before which they were contested.

It would seem, however, that the officials are not waiting for the courts to pass condemnation upon their usurpations, for they appear to have set themselves to the task of revising their work from beginning to end, and of eliminating therefrom such parts of it as are most plainly and palpably unauthorized by the law.

In another editorial in this issue we have called attention to a very important change in the label requirements, and we had scarcely finished the writing of that article when we received "Food Inspection Decision No. 86." This "decision" is termed "An Interpretation of Regulation 2," but, in fact, it is a complete and an absolute reversal of that regulation, as any one can see who will compare this late "decision" with the regulation referred to.

Regulation 2 defined what the officials, at the time it was promulgated, announced that they would hold to be the "original unbroken package." According to their definition: "The term, 'original unbroken package,' as used in this act, is the original package, carton, case, can, box, barrel, bottle, phial, or other receptacle put up by the manufacturer to which the label is attached, or which may be suitable for the attachment of the label, making one complete package of the food or drug article." It further says that "the original package contemplated includes both the wholesale and retail package."

This definition was so contrary to the meaning which the United States Supreme Court have put upon the term, that we challenged its correctness at the time the regulations were issued, taking the position that the "original package" in interstate commerce, was what we denominated the "shipping" package; that is, the case, barrel, box or other container which was actually shipped, and before it was opened and its contents, or any part thereof, removed. In other words, we declared that the officials were attempting to stretch their authority so as to cover each single retail bottle or box, or other small container after it was taken out of the larger box or case in which it was received, and even after it was put on the retailer's shelves, and had been mixed with and become a part of his general stock. We asserted that only the state law could then affect the goods, and that the attempt on the part of the federal officials to interfere with any article of food or drugs *after the package in which it was originally shipped and received was opened*, was plainly a usurpation of power. In support of our position we quoted several Supreme Court decisions in which the term "original package" was defined.

Food Inspection Decision 86 completely sustains our view, and as completely reverses the position that was first taken by the administrative officials.

The fact is, the meaning of the term "original package" was well established, and the officials who prepared the rules and regulations must have known that they were attempting to overrule the Supreme Court, and their conduct, even though they imagined that

some such interpretation was necessary to make the Food and Drugs Act effective for the purposes for which it was intended, was reprehensible in the extreme.

There are several other of these regulations and decisions that are contrary to law, and which must eventually be "revised," or else they will be declared invalid by the courts. For instance, what is more monstrous than the assertion of the right on the part of these officials to inspect stores and factories in the states where food or drug products are manufactured or sold? An official of the United States, under this Food and Drugs Act, has not the shadow of a right to do anything of the kind, and if one should attempt to force an entrance into any man's premises for that purpose, the owner would have a right to expel him, just as he would any other intruder, and he could use all the force necessary for that purpose.

We shall await with pleasure the receipt of other "revisions," for they are bound to come, so utterly arbitrary have Dr. Wiley and his associates been. We notice that Dr. Wiley's name is not signed to these "revised" regulations, though, like that of Abou Ben Adhem, it led all the rest in the original regulations, and in the multitudinous food inspection decisions. Food Inspection Decision 86 is signed only by F. L. Dunlap and George P. McCabe. The inference is that the worthy Doctor has been overruled, and that, stubbornly adhering to his early arbitrary constructions, he has refused to give his assent to the "revisions." But the Doctor might as well make up his mind to "pull in his horns." He will have to "eat crow" many times, if he continues long in his present position, for in the whole range of history we do not remember any official, big or little, who has more frequently attempted "to stretch the law to his authority."—National Druggist.

CHICAGO KEEPS COWS.

A Cow Blue Book has been compiled by Dr. W. A. Evans, commissioner of health.

Dr. Evans flashed his blue book on the council health committee recently, and surprised the members so that they indorsed without a murmur an ordinance designed to regulate dairies within the city. They never imagined that 1,383 cows lived in Chicago, but the doctor convinced them by giving his figures as follows:

Wd.	Cows.	Wd.	Cows.	Wd.	Cows.
1.....	1	12.....	15	26.....	37
2.....	12	13.....	4	27.....	17
3.....	3	14.....	4	28.....	92
4.....	10	15.....	15	29.....	10
5.....	71	16.....	5	30.....	3
6.....	9	18.....	1	31.....	136
7.....	12	19.....	4	32.....	75
8.....	45	22.....	3	33.....	570
9.....	4	23.....	12	34.....	63
10.....	7	24.....	16	35.....	42
11.....	11	25.....	84		

The ordinance as approved provides that 3,000 cubic feet of air space shall be given each cow.

Some milk is more fit to go to the cemetery than the creamery.—Elgin Dairy Report.

Heart failure is perhaps the best kind of failure.

DR. WILEY'S LAW LATIN.

"Dr. Wiley is having it all his own way over this pure food business," said a Washington lawyer the other day; "but I'm going to hustle around and see if I can't have a pure-Latin commission appointed to protect the young from the insidious danger of false quantities thrust upon them by this same advocate of purity. Not long ago the doctor delivered one of his characteristic speeches at a coeducational dinner of a coeducational law school, and he emitted quantities of Latin during his talk, some of its classic and some of it of the so-called 'law variety,' so filtered through musty briefs for centuries that even a close friend would not be able to recognize it. I can't blame Dr. Wiley for that, but I was horrified to find him misusing an old friend, one who fills up a good part of the first book of Aeneid and is a familiar chum of even the high school boy. It was the husky Aeolus, king of the winds; and the doctor not only dragged him forth as Exhibit A of Willis L. Moore's weather curiosity shop, but persisted in accenting him on the second syllable, leaning his whole weight heavily on the *o* and giving the name a strange Hibernian sound. One false quantity has been known to play the very dickens in parliament, where such an offense is regarded as a cardinal sin. For the protection of the youth of the land, therefore, I think that Dr. Wiley's Latinity should be investigated, and the appointment of a pure-Latin commission would seem to be the best way to go about it, especially since it would be in consonance with the chemist's own methods. Somebody ought to speak to the President about it."—Washington Star.

Denial from Dr. Wiley will be published next month.

A KNOCKOUT FOR MAIL ORDER LIQUOR HOUSES.**PATENT MEDICINES SAVED.**

The House of Representatives, March 11th, in its consideration of the postoffice appropriation bill, inserted a prohibition against the payment of any of the \$42,250,000 appropriated for railway and ocean mail transportation for carrying intoxicating liquors or cocaine in the mails. The amendment was adopted without discussion.

By a vote of 21 to 30 an extension of the prohibition moved by Mr. Kuestermann of Wisconsin to include patent medicines containing more than 5 per cent of alcohol was rejected.

U. S. GUARANTY ON INSPECTED CANNED MEAT.

Representative Haugen of Iowa wants Uncle Sam to give a guaranty of purity with every can of meat or meat products inspected by government officials under the new laws. March 13 he introduced a bill requiring that a label marked "inspected and passed" be placed on all cans, pots, tins or other receptacles containing meats or meat food products when hermetically sealed and prepared for foreign or interstate commerce. The bill also provides that no food product shall be offered for sale under any fictitious, false or deceptive name, established trade names being permitted.

SECRETARY WILSON UNDER A SPECIAL ORDER APPOINTS A REFEREE BOARD.

Dr. Ira Remsen, Dr. Russell H. Chittenden, Dr. John H. Long, Dr. Alonzo E. Taylor and Dr. C. A. Herter, consulting scientific experts, will constitute a Referee Board to aid the Secretary of Agriculture in enforcing the Food and Drugs Act of June 30, 1906.

The board will consider those scientific questions arising from time to time in the enforcement of the law which may be referred to the board by the Secretary of Agriculture.

Dr. Remsen will act as chairman of the Referee Board.

JAMES WILSON,
Secretary of Agriculture.

NET WEIGHT LABEL LAW UNCONSTITUTIONAL IN NEBRASKA.

In the case of the Nebraska Food Commission against Swift & Co. in the District Court at Lincoln, Neb., February 26, Judge A. J. Cornish instructed the jury to bring in a verdict of not guilty on the charge of failing to brand the net weight on packages of ham and bacon. Judge Cornish ruled the police power of the state could not be extended to the labeling of provisions, the net branding clause of the state pure food law being unconstitutional.

The net weight clause of the Nebraska food law has been the subject of much contention. The announcement of the packing company that they would fight that provision of the law aroused much interest and the case has been closely watched by other food manufacturers as well as meat packers.

NEW VINEGAR LAW IN OHIO.

Ohio has enacted a new vinegar law establishing definitions and standards for cider and other varieties of vinegar. The sale of glucose and sugar vinegar is prohibited, as is also mixtures of colored distilled vinegar with cider vinegar when sold as a blend. The standards adopted for cider vinegar are 1.75 per cent solids and 4 per cent acetic acid. All other vinegar must contain 4 per cent acidity.

COMMISSIONER DUNLAP RENOMINATED.

Hon. Renick W. Dunlap, Dairy & Food Commissioner of Ohio, was unanimously renominated for another term as Dairy and Food Commissioner of Ohio, at the Ohio State Republican Convention on Tuesday, March 3. The nomination of Mr. Dunlap is equivalent to an election. Mr. Dunlap is very popular in his state and has a host of friends who will work enthusiastically for his re-election.

DR. T. B. WAGNER HONORED.

Word has been received from London, England, of the election of T. B. Wagner of Chicago as vice-president of the Society of Chemical Industry, the foremost organization of its kind in the world. This is an unusual honor to be conferred upon an American.

FARMERS AND DAIRYMEN

Desiring good help, earnest and steady men will do well by writing to the Agriculturists' Aid Society, 507 S. Marshfield Ave., Chicago, Ill.

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TWO BULLETINS FROM MISSOURI.

In all well regulated prize fights, it is customary for the contestants to engage in a fierce wordy duel in the newspapers before appearing in the roped arena.

It is in this interesting stage that the Missouri Food Commission has arrived and announces an onslaught on adulteration in the publication of two bulletins, No. 1 entitled "Vinegar" and No. 2, "Fraudulent Sale of Oleomargarine."

The bulletins are written in a popular vein with the idea of acquainting the public with the facts of the situation and perhaps incidentally to defend the department's rulings on disputed propositions. The bulletin on "Vinegar" is a correct presentation of the subject, "Mit der exceptions," as Dinkelspiel would say that the conclusions are not supported by the argument. As a food precept the aphorism: "Let every food be sold for what it is and then let the law of supply and demand regulate the price" is perfect. It is the back bone of our food laws. It appeals to the common sense of every individual. Unfortunately it would sound better, set better and be better if the department had not violated it by announcing that the department had ruled against the use of all artificial color in vinegar, thus, banishing from the market "*Colored Distilled Vinegar*," a well established and meritorious food stuff, and again by announcing in the same bulletin that while other varieties of vinegar except colored distilled might be sold for what they were, that is, labeled with the variety name, cider vinegar would have the special privilege of traveling incognito and also that when vinegar was asked for, "Cider Vinegar" would have to be furnished. This is the law Commissioner Washburn says: and, of course, he has no discretion but to enforce the law as he finds it.

The bulletin as we said before is all right for a popular bulletin, "Mit der exceptions," that in the beginning "Vinegar" is rather verbosely and inaccurately defined, as the product formed by the acetous fermentation of an alcoholic liquid under the influence of an organism existing in the "Mother of Vinegar," when it should be defined (See Law)—Vinegar is "Cider Vinegar."

In an effort to show that distilled vinegar is of a different class from other vinegar, Commissioner Washburn is possibly straining a point. All vinegar is made from diluted alcohol, all alcohol commercially

is made from sugars. We must go still back of sugar for a name that will characterize vinegar. Such a name for example as will show the origin of the sugar whether from vegetable, fruit or grain.

The bulletin also states that Distilled Vinegar, although a legitimate and pure article has been given the name "White wine vinegar," a gross misrepresentation. It may be true that in the days when this variety of vinegar was so designated, a few people may have been deceived in its origin. It, however, started out in life honest. It was named according to its derivation—Low Wine Vinegar—as it was made directly from low wine. When the colored product put in an appearance, it was known as colored Low Wine Vinegar, the name of the uncolored was shortened to "White Wine Vinegar." In Wisconsin, this kind of vinegar was officially called "Whisky Vinegar," which, although not quite correct, was yet an improvement on the name by which it is now universally known and officially recognized in United States and Missouri Standards, "Distilled Vinegar." It, of course, is not a distilled vinegar, as the distillation is conducted before the vinegar stage is reached. The alcohol is distilled, not the vinegar, and, therefore, the name distilled vinegar is a misnomer. However, there is no need of anyone tearing his hair about it. Probably no one would be deceived in the purchase of vinegar under this name and many a one might be if compelled to learn a new name.

Cider vinegar is stated in this bulletin to be the principal vinegar of commerce in the United States. We have no statistics at hand to verify this statement, but it is quite contrary to our belief which is that fully 10 barrels of distilled vinegar are sold to one of cider.* It is not necessary to assume that the "flavor of cider vinegar is partly due to the minute particles of apple pulp remaining in the vinegar to justify the presence of "impurities" in cider vinegar. Most cider vinegar is perfectly clear, showing no particles of pulp and if not clear it is usually filtered to make it so. Apple pulp is not particularly fragrant nor appetizing. The flavor of cider vinegar we should say is due to apple juice, or the soluble constituents of apple and should the apples be sound and the fermentations scientifically conducted in sanitary surroundings, these constituents are not impurities, of course, but are proper and necessary ingredients. We have no quarrel with properly made cider vinegar.

The bulletin further says: "When distilled vinegar is artificially colored, it *takes on* a rich amber color and looks like cider vinegar. This is a fraud, pure and simple and has been legislated against by a majority of the states." It is an undisputed fact that distilled vinegar is commonly colored brown by burnt sugar or caramel and when thus colored, it undoubtedly resembles in outward appearance apple vinegar, malt vinegar, beer vinegar, etc. But we cannot concede that this coloring is in itself a fraud or that in fact any fraud is committed unless such article is sold as and for cider, malt, or beer vinegar. Glass can be made and is made to resemble a diamond, not only in color but in cut and brilliancy, but that is not a fraud nor for that reason should crystal glass be prohibited. The fraud occurs only when some one tries to palm it off as a diamond. Mercerised cotton re-

*Mr. Callahan estimates about 80 per cent of the vinegar of commerce as distilled vinegar, 15 per cent cider vinegar and 5 per cent other varieties of vinegar.

sembles silk, but on that account should it be outlawed? These commodities are not protected by law, and in purchasing them we must look out for ourselves, but in many states as in Missouri, thousands of dollars are yearly appropriated to state officials to prevent colored distilled vinegar being sold as cider vinegar or as any other variety of vinegar. If these officials are not doing their duty others should be appointed who can and will. Scarcely any law in the country prohibits colored distilled vinegar sold on its merits and when any state has done so, it has been at the demand of special interests. We have no doubt that any state has the power but does it have the "Right" to drive out a pure and properly labeled product in order to create a monopoly to another.

FIRST DRUG CASE UNDER THE FOOD AND DRUGS ACT.

The first case to be tried under the National Food and Drugs act of June 30, 1906, is under way in Washington, D. C. The particular crime is that noted in last month's JOURNAL, namely the misbranding of a pharmaceutical compound, the so-called "Harper's Cuforhedake" or brain food, put up by Robert N. Harper, 467 C street, Washington, D. C., and sold by Stone & Bro., 609 Pennsylvania avenue, Washington, D. C., under a guarantee from the manufacturer. The manufacture and sale occurring in the same city, the case, of course, does not involve any questions concerning interstate commerce or the validity of the act, as there is no question as to the right of the national government to make police regulations for the District of Columbia. In all respects it is a case similar to the thousands being brought by state food commissions, except that it involves some very peculiar interpretations of the national food law, one of which is that under the general definition of misbranding, the department may decide whether or not a drug or preparation is a cure for a particular disease.

If not a cure, according to the Department of Chemistry, the article so branded is liable to confiscation and its makers to arrest, fine or imprisonment. This, however, is not the only question involved in the case in Washington. United States Attorney said that the Government would try to prove that in this preparation, drugs and concoctions were used which, instead of being what are generally recognized as headache remedies by medical practitioners and in the *Materia Medica*, were drugs which, if taken singularly or in many different forms of compounds, would be injurious to health. The U. S. Food and Drugs Act demands that the label declares certain substance if present. Some of these substances are almost universally present in headache powders, notably acetanilid or its derivatives. It is not stated whether or not this section of the act was violated.

Mr. Stone, the retail dealer of the sample under litigation, at first refused to answer questions on the ground that his answers might tend to incriminate him and was temporarily excused. He was later, however, compelled to testify on the ground that the guarantee of the manufacturer exempted him from prosecution.

The article alleged to be misbranded was purchased and analyzed by Mr. Henry O. Fuller, M. S., Department of Agriculture. Mr. Fuller found it to contain:

Alcohol, 24 1-5%.

Acetanilid, 3 1-10%.

Antipyrine, 1 1-5%.

Caffeine, 1 4-5%.

Bromides, 8 5-10%.

Glycerine, minute amount.

Mr. Tucker of the council for defense, objected to the witness giving analysis as irrelevant to the issue of misbranding. The objection was over-ruled and exceptance noted. Dr. L. E. Kebler, chief of the drug laboratory also testified as to the tests as also did Dr. W. H. Wiley, chief of the Bureau of Chemistry.

Many testimonials in favor of Cuforhedake were read and in rebuttal Dr. Samuel S. Adams and Dr. Sterling Ruffin testified to the general qualities of antipyrine, acetanilid, caffeine and bromides, which they recognized as harmful and further, that many people took headache powders of this character without knowing the danger.

Dr. Harper testifying in his own behalf told of the ingredients of the article, the number of years it had been on the market, the tests that had been made with it to prove its value and safety. Although he admitted if one should drink a whole bottle the consequences would likely be fatal, he insisted, nevertheless, that the article was not a poison, but a medicine. The food value of the preparation, he claimed, was in the alcohol present.

Later—The case as it went to the jury hung on the question of whether or not acetanilide and antipyrine were poisonous substances, albeit the label on the goods announced the preparation to be non-poisonous. The judge instructed the jury to bring in a verdict on two of the four counts in the indictment. The jury was out about twenty-five minutes, took one ballot and brought in a verdict of "Guilty." The maximum penalty is a fine of \$200, or imprisonment for six months, or both. Notice of appeal was immediately taken.

PROFESSOR IRA REMSEN.

Ira Remsen, whose likeness we present on our front page, was born in New York City February 10, 1846. He was for two years a student in the College of the City of New York, and studied medicine in the College of Physicians and Surgeons, receiving the degree of M. D. in 1867. The next three years he spent at the universities of Munich and Göttingen, being graduated as a Doctor of Philosophy by the latter university in 1870. From 1870 to 1872 he was an assistant in the University of Tübingen. From 1872 to 1876 he held the professorship of physics and chemistry in William College. In 1876 he became professor of chemistry in the Johns Hopkins University, and in 1901 he assumed the duties of president. Honorary degrees have been conferred upon him by Columbia, Princeton, Yale, Toronto and the University of the South. He is a corresponding member of the British Association for the Advancement of Science, a foreign member of the Chemical Society of London, and an honorary member of the Pharmaceutical Society of Great Britain. He has been president of the American Association for the Advancement of Science, and in 1907 he was elected president of the National Academy of Sciences. He is the founder and editor of the American Chemical Journal, the author of numerous text-books of chemistry, and a frequent contributor to scientific journals.

NEW FOOD BOARD.

In another place we note the appointment of a scientific board to arbitrate questions arising under the Food and Drugs Act. This board was appointed through President Roosevelt's counsel and the individuals were undoubtedly selected by him.

Prof. Ira Remsen of Johns Hopkins University is the chairman. Prof. Remsen is both an investigator and teacher in organic chemistry and has written textbooks which are extensively used in this country. Dr. Chittenden, who is director of the Sheffield Scientific School of Yale, is also an investigator as well as teacher, and is one of the leading toxicologists of the world. Dr. Long hails from Northwestern University, Chicago. He has made extensive studies of abstract chemical questions, and published the results of same in the Journal of the American Chemical Society, on which paper he was chairman of Committee on Publications. Dr. Taylor is professor of pathology in the University of California and Dr. C. A. Herter, professor of physiological chemistry, College of Physicians and Surgeons, New York. Altogether an imposing array of specialized talent is represented. Throughout the country the appointment of this board is taken as a direct reprimand to Dr. Wiley, who has very largely had his own way up to the present in passing on questions arising under the food act. Dr. Wiley is rebelling somewhat openly at being superseded by the new board.

The New York Journal of Commerce, whose Washington correspondent for two years has been Dr. Wiley's able and willing slave, and a few other publications, which may be called his personal organs, have defended Dr. Wiley and questioned the propriety of appointing the new board. They attempt to show that it was brought about by manufacturers of adulterated and impure food. They also adopt the tactics now so familiar of questioning the character of the new board, suggesting that while the members comprising same may be able and competent, they may be susceptible of purchase by the "special interests." This line of opposition will not do Dr. Wiley any good. If a board of five of the most eminent scientific men of this character cannot be trusted, how can faith be placed in one man. No more disinterested board could in fact be chosen. That is its chief recommendation. It was evidently President Roosevelt's intention to get men unbiased by business interests. He employed the means ninety-nine men in a hundred would have employed. Except in one instance he has not only secured men of eminent attainments, but men who have shown a disposition to refuse to wear the collar of any man or clique, however powerful their influence.

However, if THE AMERICAN FOOD JOURNAL were asked to make a board it would have been somewhat different. While some of these scholastic men would have been represented it would also have contained prominent food analysts who have by their efforts made food chemistry a distinct branch of science. It would also have included representatives of the food manufacturing interests of this country who can bring a better knowledge and richer experience on some phases of food problems than can the theoretical or the practical chemist. However, it is only a question of time when this broader representation will establish principles which shall govern the food industry, possibly through aid of government or state,

probably through the voluntary and united efforts of the food industries themselves. However, we believe that the new committee of the Secretary of Agriculture will tackle scientific questions in a scientific light and be a great improvement over present methods in interpreting the National Food and Drugs Act.

ILLINOIS MILK PRODUCERS INSTITUTE.

The Milk Producers' Institute of Illinois held the most successful convention in its history in Harvard, Ill. Harvard is a lively town on the Northwestern Railroad about ninety miles from Chicago. It is in the center of a great milk producing district. The farmers of this district are about equally divided between those who send to condensories and bottling plants and those who ship to Chicago markets.

A large and appreciative audience greeted every session. Dr. Evans talked on pure milk and Chicago needs. Mr. Glover on dairy farm management. Dr. Eaton on milk testing associations and Mr. Whittaker, formerly dairy agent Massachusetts Board of Health, now with the Dairy Division, U. S. Department of Agriculture, on the general improvement of the dairy industry.

The citizens of Harvard contributed plenty of light entertainment in the shape of vocal and instrumental music, whistling solos and declamations. Mr. Holcome of Sycamore won the audience with his character impersonations and dialect readings.

Miss Barry, instructor in the Normal Schools of De Kalb, gave a highly instructive plea for more instruction in domestic science and manual training in the public schools. Mr. MacVean, secretary of the association, talked on the bi-products of milk. Mr. Cheesman spoke on the relations of the dealer to the producer. Mr. Mason on management of the dairy farm to make money. Others spoke on different subjects connected with the dairy industry. It is safe to say no moneys expended by the state, be it large or little, yield as good returns to the state in the upbuilding of state industries, in the increased fertility and productivity of the land in the health of the milk consumer (mostly by the way babies and invalids) as the little \$500 appropriated to the financing of the Milk Producers' Institute.

TOTAL ABSTAINERS MOLLYCODDLES.

Dr. Wiley is reported to have said in an address before the University Club that a man who never takes a drink of whisky is a "mollycoddle." It gave him a moment's notoriety. Later the doctor comes out in a denial of the report.

It is the old story of what he said and what he said he said, recalling the artificial comb honey, impure gelatine and adulterated whisky statements.

In this instance, however, the newspapers may have lied, as they are ever watching for an excuse for a sensation. The longest account, however, appeared in a special dispatch to the Record-Herald—not in the Examiner or Tribune, which is something in favor of the authenticity of the original account.

Swift & Co. won their suit with the Nebraska Food commission relative to placing net weights on their hams and bacons. The honey producers think the same decision will relieve them of the necessity of placing the net weight on each section of comb honey. The decision is printed in full in another part of this issue.

POOR FOOD IN STATE INSTITUTIONS.

A legislative committee appointed to investigate the Illinois State institutions finds many of them in a deplorable condition. Unthought of cruelties are found to have been practiced on the state's charges, and living conditions are as bad as could well be imagined. The food served at many of the institutions was very poor and at the Pontiac reformatory, according to a witness, was barely edible. James Hyman, a food expert, was called by the committee to pass on the quality of food purchased for the state institutions. Mr. Hyman testified that it would take an ax to break bread fed the inmates of the Lincoln asylum for Feeble Minded Children. At that it was all dough inside and sour enough to make a pig squeal. Mr. Hyman exhibited some of the bread broken with an ax to prove his assertions. The bread at the Jacksonville asylum was but little better. Other staples like tea and coffee were of the poorest quality and the prices paid exorbitant, even for the small quantities in which the management purchased the supplies. Not long ago the small-salaried assistants in the institutions were placed on a merit basis and people hoped for a State without a scandal, but with politicians controlling the civil service board and the important positions awarded as plums to the governor's supporters and little responsibility anywhere except to control county committees, it is little wonder that the state institutions have deteriorated rather than improved under the management of Gov. Deneen.

ILLINOIS RETAIL MERCHANTS CONVENTION.

The Retail Merchants' Association of Illinois held their annual convention at Dixon, Ill., Feb. 15th to 20th, 1908. Many interesting addresses were listened to and much business of great importance to retailers transacted. Despite the inclement weather three or four hundred delegates from every nook and corner of the state were present. An unusual feature in the shape of a pure food show and industrial exhibit was contributed by the citizens of Dixon. A pure food exhibit installed by Dr. E. N. Eaton was a center of attraction. As a part of this exhibit a lady demonstrated how preliminary test for impure food could be made by the housewife. The retail grocers also took great interest in this exhibit.

Sol. Westerfield was re-elected president and Geo. E. Green, secretary. The next convention will be held in East St. Louis in Feb., 1909.

THE OFFICIAL PURE FOOD STAMP.

One million more or less daily and weekly newspapers over the country devote a column explanatory of the statement that "beginning Sunday, March 1st, every article in every drug store in the United States which comes under the pure food law passed by Congress last year, must bear the official pure food stamp." June 30th, 1906, is scarcely last year and we fail to see how any article of food or drugs is compelled to bear any stamp under the food law.

It only shows how enthusiastic people sometimes get over things they know little or nothing about.

In some of the states prohibition bills have been introduced in the legislature classifying hard cider as an intoxicating beverage.

THE CRIST BILL.

The Inland Grocer characterizes the Crist Pure Food bill, drawn and endorsed by Commissioner Dunlap and recently introduced in the Ohio General Assembly as "harsh food legislation." The definitions of misbranding are certainly lenient enough, being patterned after the National law. The chief thorn in the side of the Grocer is that it holds the retailer rather than the manufacturer responsible. Yet there are many that claim that the guarantee in state food laws is absolutely unconstitutional and will invalidate the entire law. Whether a guarantee is written in the law or not, in practical application it amounts to the same thing as every reputable manufacturer, whether within or without the state will protect the retailer. If he did not he might as well discharge his help, nail up his doors and go home for keeps. The fact that the wholesaler bears the brunt of food legislation even when no guarantee is given is most notably illustrated in the enforcement of the Iowa, North Dakota and South Dakota food laws. The Inland Grocer will probably see more severe food laws than the Crist bill.

CONNECTICUT'S FOOD ANALYSIS FOR 1907.

The report of the Connecticut Agricultural Experiment Station for 1907 shows 1,594 samples of food examined, of which number 1,229 were pure and 254 adulterated or below standard. The most attention was given buckwheat flour, chocolate, lard, extracts, olive oil and spices. No prosecutions are reported. In writing of the time and facilities of the station being utilized in making analyses for the citizens of the state, the director says: "Even if the station's resources were much larger it would still be obviously wrong to examine at public expense samples which has little or no importance for the general public."

THOMAS K. BRUNER.

The Food Commissioners and their assistants all over the United States will be shocked to learn of the death of the Hon. Thos. K. Bruner, Secretary of the North Carolina Department of Agriculture and Treasurer of the Association of the State and National Dairy & Food Departments. Only last year his duties were increased by his election as emigration agent for the South.

Mr. Bruner devoted his life to the upbuilding of the cause of agriculture, not only in his official position, which he filled most acceptable for twenty-one years, but by his pen, invaluable contributions to the agricultural press. Congenial and companionable with a fund of anecdotes and reminiscences. He was a typical southern gentleman who endeared himself to all with whom he came in contact. By his death the phalanx of food workers suffers a loss, which it will be difficult indeed to repair.

EDWARD S. MCKENZIE.

Edward S. McKenzie, editor of the Food Law Bulletin, met instant death on the 7th inst., under the wheels of a State street surface car. According to the motorman, Mr. McKenzie slipped directly in front of the car, was thrown on the fender and before the car could be stopped, rolled under the wheels.

Mr. McKenzie always issued a bright newsy paper and showed great familiarity with the technical side of food science and food legislation.

FOOD NOTES

The Pennsylvania food department are getting convictions on adulterated catchup.

* * *

Dr. Harold Elderken, a veterinary and horseman, has been appointed deputy Pure Food and Dairy Commissioner for Fort Worth and Tarrant county, Texas.

* * *

Mr. Anthony Sauer, who has been state food inspector with headquarters in Cincinnati for a number of years, died and was buried on New Year's day

* * *

Mr. J. J. Kinney, assistant Dairy and Food Commissioner of Ohio, resigned February 1st to accept the position of city sealer of Cincinnati, Ohio. Mr. Harry Kalthoff was appointed as Mr. Kinney's successor.

* * *

There is a new packing plant about to be erected in Portland, Ore., by Swift & Co., of Chicago. This, they say, will make Portland the packing house center of the Pacific coast. It is also said that it will make an additional expenditure to the railroad companies of about \$2,000,000 for railroad facilities.

* * *

The Internal Revenue officials are discovering considerable "Moonshine Oleomargarine" in Chicago, Des Moines and St. Louis. By Moonshine Oleomargarine is meant a product colored in barns and out of the way places to evade the Government tax of 10c per pound. A number of such manufacturers have been caught and convicted and cases are still pending against others.

* * *

It is said that Commissioner Slater of the Minnesota State Dairy and Food Commission is about to tender his resignation to Governor Johnson and is desirous of securing a position as professor in the State Agricultural School, of which he has practically been at the head of the Dairy Department, thereby placing him in position where a change of administration would not affect him.

* * *

The Toasted Corn Flakes Co. and the Malta Vita Food Co. are engaged in a spirited contest over the ownership of a formula for making corn flakes. The former claim the Malta-Vita people, through an employe of the Sanitas company who later became associated with Malta Vita, stole the Sanitas process, which is now valued at \$200,000. The litigation takes place in Marshall, Mich.

* * *

The National Creamery Butter Makers' Association held a three-days' convention in St. Paul, Minn., March 11th, 12th and 13th. An interesting paper by W. W. Wall, secretary of the Minnesota State Dairy and Food Department was read. Mr. Wall claimed that if the creameries would furnish a perfectly sweet and sanitary product the Minnesota butter maker could save one million dollars annually, now paid in commissions. Mr. H. E. Schneknecht, assistant commissioner, represented the Illinois Food Commission at the convention.

SCIENTIFIC

THE FIG.

MISS LUCY DOGGETT.

Figs, the fruit of *Ficus Carica*, are represented by the numerous fossil remains of some of this family, by writers of ancient and modern literature and by the luxurious fruit of our tropical and sub-tropical countries. The genus *Ficus* has been recognized in cretaceous deposits of Greenland, Kansas and Nebraska, but to-day this fruit will not grow in any of these climates. Few fossil remains can now be found where the fig luxuriates to-day. The fig grows in its native condition in Palestine in the chalky soil for which this country is noted. The fossils found in the different states mentioned above are imbedded in a soil which is very like that of which we find the fig



MISS LUCY DOGGETT.

ASSISTANT ILLINOIS STATE ANALYST.

in its native state. Figs written of in ancient lore and modern poetry belong to the bread fruit family which provides the negro of the south sea islands and the people of the warm countries lying to the south of us with a great deal of their necessary food. The fig was alluded to by Christ when he cursed the barren fig tree, it was doubtless of its familiarity to all classes that the Originator of Allegories spoke of it especially. Before the cereal was introduced the fig was consumed to a greater extent. A convenient quality of the fig is that it can be eaten with perfect safety

when raw, dry or cooked. Figs are strikingly different from other fruits in that they retain their peculiar delicate flavor, most probably on account of the large amount of fruit sugar normally present amounting to 50 per cent of the fig. No preservatives are necessary for figs when prepared for market in their various forms. Thousands of tons of the dried fruit are consumed annually in England and America. Found wild in the earliest inhabited countries the fig has accompanied man into all the countries into which it can be successfully cultivated. It was known in the time of Plato, it was early carried into Italy and thence into Spain. France grows it and England cultivates it for the fresh fruit. It has been a source of food in England since 1066, but on account of the moist, foggy climate the sun dried figs are not a source of revenue. Figs on account of their life-preserving sugar can be shipped from their place of growth to any part of the world and people in all conditions of life and of all ages relish them and enjoy the nectar of the fruit. A great many figs in commerce are extremely filthy especially those for disposition by the Greek and Italian venders. Not only dead extraneous matter carrying all kinds of disease germs—for filth is the domicile of disease—but living organisms thrive here not counting the many varieties of disease germs which may lurk in the numerous folds of the fig. There are at least four varieties of bugs about the same color as the fig which have been found in most of the figs for sale on the stands and in the open show cases of the fruit dealer. A pocket lens, or better a microscope, will render this form of adulteration patent. All the figs on which the four varieties of bugs were found were dirty on the exterior and either split or cut. The insects being chameleon like are doubly hard to reckon with and when we have a bag of figs we generally swallow quite a number of these denizens. The dealers claim it is impossible to procure or sell a fig free from animal contamination, but, on the contrary, I do not believe this to be true. I have had clean, whole, nearly white figs brought to the laboratory which had not been cut or split and they were free from all contamination, these cases were rare. Nature has given the fig a tough coating but insects burrow in to sip the sweets and birds peck holes to get food and the retailer splits or cuts the figs and all the abrasions are helping to make a home for filth and insect and bacterial life. Nearly all our other fruits except dates are acid in character and not such a ready food for flies and insects and an incubator for the eggs of insects. Those who eat figs should wash the exterior and dry by absorbing the water from the exterior of the fig, do not soak the fig, for that will take out some of the delicate flavor. Not only is the fig used for dietetic values but for medicinal properties. The Smyrna fig cannot be grown except by the intervention of insects which fertilize the flower. The fig is one of our best mild medicines and best foods. It seems to have been esteemed more highly in older times and I think it has fallen into disrepute on account of the filth which seems naturally to surround it.

Figs are official in our formularies, and cook books and are used by the confectioner and by experts in preparing intoxicating beverages. Syrup of figs, fig preserves, wine of figs, candied figs, fig coffee, are all highly esteemed. Fig coffee is the roasted fig reduced to a powder and made into a drink. Fig wine is made

by fermentation. Chemically, figs are found to contain 50 per cent fruit sugar, 4.0 nitrogenous matter, 2.86 per cent mineral matter, water 31 per cent.

Figs grow side by side with the orange, grape fruit, lemon, olive, eucalyptus, palm, and pepper tree and should be hygienically packed and stored from the time they leave the grower until they are purchased by the consumer. It is more necessary to keep them in a cool, clean, dry place than any other fruit except the date.

LEMON EXTRACT.

BY DR. T. J. BRYAN
Illinois State Analyst.

A true lemon extract is an alcoholic solution of the oil of lemon which is obtained from the lemon peel.

Lemon extract is made by dissolving 50 cubic centimeters of the lemon oil in 900 cubic centimeters of deodorized ethyl alcohol and macerating with 50 grams of grated lemon peel for twenty-four hours. It is then filtered through paper and enough alcohol added to make the whole up to 1,000 cubic centimeters. By using the grated lemon peel a delicate yellow color is given to the extract; this color, however, gradually fades until the extract becomes colorless or nearly so.

Extracts for food purposes are generally made by dissolving oil of lemon in ethyl alcohol without the use of lemon peel. These solutions as first prepared by the manufacturer are frequently richer in oil of lemon than is required by law. To this rich extract many manufacturers have been accustomed to add sufficient water to reduce the percentage of oil of lemon to 5 per cent. This would be all very well if the manufacturer did not forget that in reducing the percentage of oil of lemon with water he *also reduced the strength of the alcohol*. The addition of the water results in the extract becoming turbid and opaque, due to the oil of lemon being precipitated from solution. The extract is then filtered through magnesia *and the oil is removed*. The conscientious but ignorant manufacturer has thus taken out of the original good extract the oil that gave it value.

The amount of oil, or the flavoring value of the extract prepared in this way depends on the strength of the alcohol after it is diluted with water.

The following table gives the percentage of alcohol necessary to dissolve the corresponding percentage of oil of lemon at ordinary temperatures:

SOLUBILITY OF LEMON OIL IN ALCOHOL.	
Per cent Alcohol by Volume.	Per cent Oil of Lemon.
50	0.29
60	0.58
65	1.11
70	1.89
72.5	2.88
75.07	3.50
77.5	4.19
80.0	5.23
82.5	7.01
85.0	9.68

One must use at least 5 per cent stronger alcohol than given above in order to hold the oil permanently in solution, otherwise changes of temperature will cause a precipitation.

Lemon extract must, according to the new law, which went into effect July 1, 1907, contain not less

than 5 per cent of oil of lemon by volume and must have no color other than that obtained from the lemon peel. In order to hold 5 per cent of lemon oil in solution the extract must contain at least 85 per cent of alcohol by volume. This makes the alcohol the principal item in the cost of the extract and hence the majority of the illegal extracts on the market are due to the fact that the manufacturer tries to cut down the cost of production by using less alcohol. This results in an extract containing less than 5 per cent of oil and very often no oil at all is present, it being necessary to have at least 45 per cent alcohol to dissolve even a trace of the oil. However, an extract containing less than 5 per cent of oil, for example 2 per cent, can be legally sold if labeled "2/5 standard strength lemon extract." This same principle of labeling extracts below standard also applies to other extracts where a standard is set.

Other illegal extracts are merely solutions of oil of lemon grass or oil of citronella artificially colored with a coal tar or vegetable dye. Occasionally sugar is used to aid in the solution of the oil, thus necessitating less alcohol.

Many manufacturers have heretofore tried to evade the letter of the law in the case of extracts that are below standard by labeling them flavor or flavoring. This Department holds, however, that extract, flavor, flavoring, spirits, essence and tinctures as applied to solutions used for flavoring food products are synonymous terms.

The name extract refers to the method of manufacture, flavor to one of the properties of the solution, flavoring to the use to which it is to be put, etc., but one and all they refer to and depend upon the flavoring principle of the particular fruit or plant named and are used for the same purpose, hence are one and the same thing and should comply with the legal requirements for extracts.

Terpeneless extracts contain none of the terpenes or oily constituents of the lemon oil. These are legal when distinctly marked "terpeneless."

Of the 131 samples of lemon extracts examined since the first of July 65 were found to be illegal. The majority of the illegal extracts were below standard in the amount of oil present, while others, although they contained the required percentage of oil, were artificially colored, and one sample contained sugar. A number of samples have been classed as illegal on account of having "concentrated" on the label. According to a ruling of the commissioner, "the term concentrated as applied to flavoring extracts is false and misleading." The concentration of an extract results in a removal of the alcohol and precipitation of the flavoring principle.

The housewife can, by applying a few simple tests, tell considerable about the purity of the extract. If, on the addition of water, the extract remains clear, there is no oil present. Turbidity indicates the presence of oil and the exact amount, however, being determined only by more complex physical and chemical tests. Any solution containing 25 per cent or more of alcohol will burn, hence if the extract will not burn it is below the standard.

In buying lemon extracts one should select an extract that is colorless or nearly so, for these are more often legal than those that are highly colored.

F. I. D. 86.

Issued February 20, 1908

United States Department of Agriculture

OFFICE OF THE SECRETARY
BOARD OF FOOD AND DRUG INSPECTION

FOOD INSPECTION DECISION 86

Original Packages: Interpretation of Regulation 2 of Rules and Regulations for the Enforcement of the Food and Drugs Act.

Regulation 2 of the Rules and Regulations for the Enforcement of the Food and Drugs Act (Circular No. 21, Office of the Secretary, United States Department of Agriculture) declares—

The term "original unbroken package" as used in this act is the original package, carton, case, can, box, barrel, bottle, phial, or other receptacle put up by the manufacturer, to which the label is attached, or which may be suitable for the attachment of a label, making one complete package of the food or drug article. The original package contemplated includes both the wholesale and the retail package.

This definition of original unbroken package was inserted in the regulations for the purpose of facilitating the administration of the act. It was intended to be, or at all events is, a guide to the inspectors who purchase the samples throughout the United States, as to the nature of an original unbroken package. Upon the basis of this regulation the inspectors have collected a large number of samples, but when an examination of some of the cases has been made, with prosecutions in view, it has been found that no action could be taken because the package bought was not an original package, though apparently so upon a reasonable interpretation of the regulation. Furthermore, the department is advised that the food commissioners of some of the states, guided by a literal interpretation of the regulation, have refrained from enforcement of their laws upon all packages apparently embraced within its terms.

It is believed that the discussion of the question and the cases cited will prove helpful to those United States attorneys to whom cases are reported for seizure in original packages under section 10 of the food and drugs act.

To prevent the further misconception of the scope of the regulation, and for the information of those concerned, it is the purpose of this decision to set out the interpretation the department has made of it, and the authorities therefor.

Construed in the light of judicial determinations of the question, the terms "original unbroken packages" (as set out in the regulation and as used in sections 2 and 10 of the act) and "unbroken packages" (as used in section 3 of the act) will be restricted to such a package containing the food and drug product as has been prepared for shipment or transportation and shipped or transported, as an entirety or unit, from a state, territory, or the District of Columbia, or a foreign country, into another state, territory, or the District of Columbia, and delivered to the consignee, remaining his property in the identical form and condition in which it was shipped or transported. After arrival in a state and delivery to the consignee, if any part of the contents of the package be removed, or if the package be opened and commingled with other

property, or if the package be *transferred* by the consignee, it is no longer an original package. The retail package is not an original package unless it bears the characteristics set forth above.

It is not practicable to frame an universally accurate and satisfactory definition of an "original package." No statute has done so, and the department disclaims any attempt to do so in its construction of the terms. The question must be determined largely upon each case as it arises, with the guidance of the authoritative decisions of the courts, which for the sake of elucidating and explaining the subject are presented in the following pages of this decision.

The food and drugs act of June 30, 1906, entitled "An act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicine, and liquors, and for regulating traffic therein, and for other purposes," provides in sections 2, 3, and 10 as follows:

Sec. 2. * * * Any person * * * who shall receive in any state or territory or the District of Columbia from any other state or territory or the District of Columbia, or foreign country, and having so received, shall deliver, in *original unbroken packages*, for pay or otherwise, or offer to deliver to any other person, any such article [food or drug] so adulterated or misbranded within the meaning of this act, * * * shall be guilty of a misdemeanor, and for such offense be fined not exceeding two hundred dollars for the first offense, and upon conviction for each subsequent offense not exceeding three hundred dollars or be imprisoned not exceeding one year, or both, in the discretion of the court. * * *

Sec. 3. That the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor shall make uniform rules and regulations for carrying out the provisions of this act, including the collection and examination of specimens of foods and drugs * * * which shall be offered for sale in *unbroken packages* in any state other than that in which they shall have been respectively manufactured or produced, * * *

Sec. 10. That any article of food, drug, or liquor that is adulterated or misbranded within the meaning of this act, and is being transported from one state, territory, district, or insular possession to another for sale, or, having been transported, remains unloaded, unsold, or in *original unbroken packages*, * * * shall be liable to be proceeded against in any district court of the United States within the district where the same is found, and seized for confiscation by a process of libel for condemnation. * * *

In the enforcement and administration of these provisions, it is necessary to determine what is an "original unbroken package" or an "unbroken package." For the purpose of such determination it is not permissible to resort to the common and popular understanding of these words, for the reason that they have received a *special* meaning and import when applied to the law or interstate and foreign commerce through numerous judicial decisions upon the commerce clause of the constitution and were employed in the food and drugs act in that sense. It will be seen hereafter that these words, when used in their legal signification in connection with interstate or foreign commerce, are of restricted import.

The expression "original package" was employed

for the first time in the case of *Brown v. Maryland* (25 U. S., 419), decided by the Supreme Court of the United States in 1827. In the large number of cases subsequent thereto in which the expression is used it will be seen that no modification is made in the term. But in the present act the word "unbroken" has been added in sections 2 and 10, and has been substituted for "original" in section 3, but without qualifying effect, as the courts have used the words "unbroken" and "original" as synonymous. It is held, therefore, that their combination or substitution effects no change in significance. (*Low et al v. Austin*, 80 U. S., 29; *United States v. Fox*, Federal Cases No. 15155.)

It is sought in this decision to show *what is an original package*. Possibly it might be logical to proceed to that question at once, but it has been thought advisable, if not necessary, to consider first the extent of the power of Congress over food and drug articles transported into a state from another state or territory, the District of Columbia, or a foreign country, and there remaining. When this has been considered it will appear that the control of Congress over food and drugs, so transported, continues, after their arrival in the state, so long as they are in original packages. It will then be shown what is an original package.

In *Brown v. Maryland*, heretofore referred to, it was decided that the law of Maryland imposing a license tax upon all importers of foreign articles, dry goods, and merchandise by bale or package, and upon other persons selling the same, was unconstitutional so far as it undertook to require such license tax from an importer of goods from a foreign country for sale thereof *in the original packages in which they were imported*; that such a tax was an interference with foreign commerce, which, under the constitution of the United States, was committed to Congress to regulate. The conclusion of the court is contained in the following syllabus:

An act of a state legislature, requiring all importers of foreign goods by the bale or package, etc., and other persons selling the same by wholesale, bale, or package, etc., to take out a license, for which they shall pay \$50, and in case of neglect or refusal to take out such license, subjecting them to certain forfeitures and penalties, is repugnant to that provision of the constitution of the United States which declares that "no state shall, without the consent of Congress, lay any impost or duty on imports or exports, except what may be absolutely necessary for executing its inspection laws;" and to that which declares that Congress shall have power "to regulate commerce with foreign nations, among the several states, and with the Indian tribes."

The goods in this case were imported from a foreign country, but the court said:

It may be proper to add, that we suppose the principles laid down in this case, to apply equally to importations from a sister state.

This dictum was afterwards affirmed as law in the case of *Leisy v. Hardin* (135 U. S., 100), decided in 1890, which overruled *Peirce v. New Hampshire* (46 U. S., 504), decided subsequently to *Brown v. Maryland*. In *Peirce v. New Hampshire* it was held that a barrel of gin shipped from Massachusetts to New Hampshire was subject to the law of New Hampshire

amenable to the law for the sale of the barrel in the exact condition in which he received it.

In the case of *Waring v. The Mayor* (75 U. S., 110), decided in 1868, the Supreme Court held that sacks of salt brought into Mobile Bay from England and sold to a merchant in Mobile city after arrival of the vessel in the bay, 25 miles from the city, and transported by the merchant's lighters to Mobile, were subject to taxation by the city. The sacks had been sold by the importer after their arrival in Alabama, and hence were merged in the general mass of property in the state and were no longer under the shelter of the commerce clause of the constitution when taxed by the city of Mobile.

In 1871 the question of taxation of imports from foreign countries in the original packages came again before the Supreme Court in the case of *Low et al. v. Austin* (80 U. S., 29), and it was there held:

Goods imported from a foreign country, upon which the duties and charges at the custom house have been paid, are not subject to state taxation whilst remaining in the original cases, unbroken and unsold, in the hands of the importer, whether the tax be imposed upon the goods as imports, or upon the goods as part of the general property of the citizens of the state, which is subjected to an ad valorem tax.

It will be seen that the court here uses the expression "original cases unbroken and unsold."

In *Cook v. Pennsylvania* (97 U. S., 566), decided in 1878, the same court held a tax imposed by the law of the state upon every auctioneer on the amount of his sales invalid when applied to the sale of imported goods in original packages. It was held that—

The statute of Pennsylvania of May 20, 1853, modified by that of April 9, 1859, requiring every auctioneer to collect and pay into the state treasury a tax on his sales, is, when applied to imported goods in the original packages, by him sold for the importer, in conflict with sections 8 and 10 of article I of the constitution of the United States, and therefore void, as laying a duty on imports and being a regulation of commerce.

In *Schollenberger v. Pennsylvania* (171 U. S., 1) an act of the state of Pennsylvania prohibiting the sale of any oleaginous substance or compound of the same designed to take the place of butter was held unconstitutional so far as attempted to be enforced in the case of a sale of a 40-pound tub of oleomargarine imported from Rhode Island and sold as oleomargarine in the identical condition in which imported. The law of the case is contained in the following syllabus:

Act No. 21 of the legislature of Pennsylvania, enacted May 21, 1885, enacting that "no person, firm or corporate body shall manufacture out of any oleaginous substance, or any compound of the same, other than that produced from unadulterated milk or of cream from the same, any article designed to take the place of butter or cheese produced from pure unadulterated milk, or cream from the same, or of any imitation or adulterated butter or cheese, nor shall sell or offer for sale, or have in his, her or their possession with intent to sell the same as an article of food," and making such act a misdemeanor, punishable by fine and imprisonment, is invalid to the extent that it prohibits the introduction of oleomargarine from another state, and its sale in the original package.

(To be continued in April issue.)

FOOD INSPECTION DECISION 87

LABELING OF CORN SIRUP

WASHINGTON, D. C., February 13, 1908.

We have each given careful consideration to the labeling, under the pure-food law, of the thick, viscous sirup obtained by the incomplete hydrolysis of the starch of corn, and composed essentially of dextrose, maltose, and dextrine.

In our opinion it is lawful to label this sirup as "Corn Sirup"; and if to the corn sirup there is added a small percentage of refiner's sirup, a product of the cane, the mixture, in our judgment, is not misbranded if labeled "Corn Sirup with Cane Flavor."

GEO. B. CORTELYOU,
Secretary of the Treasury.

JAMES WILSON,
Secretary of Agriculture.

OSCAR S. STRAUS,
Secretary of Commerce and Labor.

FOOD INSPECTION DECISION 88

Private Importations.

Recently certain shipments of foods and of drugs have been offered for entry into the United States, and an examination has disclosed the fact that they were adulterated or misbranded under the food and drugs act. The shipments were refused entry into the United States, whereupon representations were made to the department that the materials were for consumption by importers or for free distribution among the friends or employes of the importers, and not for trading purposes, and the department was requested on this account to allow the entry of the misbranded or adulterated food or drug.

The provisions of the food and drugs act make no distinction between foods and drugs imported for consumption or free distribution by the importer and foods and drugs imported for trading purposes. The law provides that no misbranded or adulterated foods or drugs shall be admitted.

Notice is given that these so-called private importations will be subjected to the same restrictions as ordinary imports.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., February 17, 1908.

FOOD INSPECTION DECISION 89

Amendment to Food Inspection Decision 76, Relating to the Use in Foods of Benzoate of Soda and Sulphur Dioxid.

The question of the addition to food of minute quantities of benzoate of soda and of sulphur dioxid will be certified immediately by the Secretary of Agriculture to the Referee Board of consulting scientific experts.

Pending determination by the Referee Board of the wholesomeness or unwholesomeness of these substances, their use will be allowed under the following restrictions:

Benzoate of soda, in quantities not exceeding one-tenth of one per cent, may be added to those foods in

which generally heretofore it has been so used. The addition of benzoate of soda shall be plainly stated upon the label of each package of such food.

No objection will be made to foods which contain the ordinary quantities of sulphur dioxide, if the fact that such foods have been so prepared is plainly stated upon the label of each package.

An abnormal quantity of sulphur dioxide placed in food for the purpose of marketing an excessive moisture content will be regarded as fraudulent adulteration, under the Food and Drugs Act of June 30, 1906, and will be proceeded against accordingly.

Food Inspection Decision No. 76, issued July 13, 1907, is hereby amended accordingly.

GEO. B. CORTELYOU,
Secretary of the Treasury.

JAMES WILSON,
Secretary of Agriculture.

OSCAR S. STRAUS,
Secretary of Commerce and Labor.

Washington, D. C., February 28, 1908.

VERMONT SUPREME COURT DECISION RELATING TO INTERSTATE COMMERCE AND REGULATIONS OF U. S. DEPARTMENT OF AGRICULTURE FOR MEAT FOOD PRODUCTS.

STATE V. PEET.

Supreme Court of Vermont. Chittenden, January 16th, 1908.

(68 Atlantic Reporter, 662.)

Watson, J. The information as amended contains 14 counts, in Nos. 1, 3, 4, 7, 8, 9, 10, and additional counts 1 and 2 of which the respondent is charged with keeping with intent to ship out of this state for food purposes, the flesh of calves which were less than four weeks old, and in Nos. 2, 5 and 6, of which he is charged with keeping with intent to ship out of this state, for food purposes, the flesh of calves which weighed less than 50 pounds each, dressed weight, when killed, and in Nos. 11 and 12, of which he is charged with keeping with intent to sell, for food purposes, the flesh of calves which were less than four weeks old. The demurrers are general—one to the second, fifth and sixth counts by enumeration, and one to all the other original counts by enumeration—and by agreement the latter demurrer is treated as in like manner covering the first and second additional counts. This, in effect, is the same as a separate demurrer to every count. *Darling v. Clement*, 69 Vt. 292, 37 Atl. 779. The law upon which the information is based reads: "A person who sells or offers to sell or keeps with intent to sell for food purposes, or ships out of the state, or keeps with intent to ship out of this state, for food purposes, the flesh of any animal or fowl which died or was killed when diseased, or the flesh of a calf which was less than four weeks old or weighed less than fifty pounds, dressed weight, when killed, shall be imprisoned," etc. Laws 1906, p. 197, No. 182, Sec. 1. This statute is challenged as in conflict with Art. 1, Sec. 8, of the federal Constitution, which provides: "The Congress shall have power . . . to regulate commerce with foreign nations, and among the several states, and with the Indian tribes." On the other hand, it is contended on the part of the state that the act, in purpose and result, is to prevent the dealing in meats, for food purposes, which are unwholesome and unfit for

human consumption—hence to protect the health and morals of the community, which is within the police power of the state. It will be observed that the validity of the statute as applied to the flesh of animals and fowls which died or were killed when diseased is not here involved. We are called upon to distinguish between the power of Congress to regulate commerce between the states and the so-called police power of the state, only with reference to those features of the statute a violation of which is charged in the information. Although sometimes difficult of application to the case in hand, the law is well settled that, when the subjects upon which the power is to be exerted are local, and limited in their nature or sphere of operation, the states may prescribe regulations until Congress intervenes and assumes control of them; yet, when they are national in character, and require uniformity of regulation affecting all the states alike, the power of Congress is exclusive. And the nonaction of Congress is tantamount to a declaration that all commerce within its exclusive control shall remain free from burdens imposed by state legislation. *Cooley v. Board of Wardens*, 12 How. (U. S.) 299, 13 L. Ed. 996; *Gloucester Ferry Co. v. Pennsylvania*, 114 U. S. 196, 5 Sup. Ct. 826, 29 L. Ed. 158; *Pittsburgh & S. Coal Co. v. Bates*, 156 U. S. 577, 15 Sup. Ct. 415, 39 L. Ed. 538; *Leisy v. Hardin*, 135 U. S. 100, 10 Sup. Ct. 681, 34 L. Ed. 128.

It is argued that the state has power to prohibit the exportation to another state of anything which is not an article of commerce, as, in this case, the flesh of calves which were less than four weeks old, or which weighed less than 50 pounds, dressed weight, when killed, because unwholesome for human food. The question then arises whether such meat, for the purpose named, is an article of interstate commerce, and whether it is within the power of a state legislature to declare it otherwise. On July 25, 1906, for the purpose of preventing the use in interstate or foreign commerce of meat and meat food products which are unsound, unhealthful, unwholesome, or otherwise unfit for human food, under the authority conferred upon him by Act. Cong. June 30, 1906, c. 3913, 34 Stat. 674, the Secretary of Agriculture issued regulations "for the inspection, reinspection, examination, supervision, disposition, and method and manner of handling of live cattle, sheep, swine, and goats, and the carcasses and meat food products of cattle, sheep, swine, and goats. . . ." Under regulation 15 it is provided: "(X) Carcasses of animals too immature to produce wholesome meat, all unborn and stillborn animals, also carcasses of calves, pigs, kids, and lambs under three weeks of age, shall be condemned." Since these regulations were prescribed by the Secretary of Agriculture under authority of the act of Congress before referred to, and are not inconsistent with the provisions of that act, they have the force of law. *Nye v. Daniels*, 75 Vt. 81, 53 Atl. 150.

Under the general rule here applicable, that the exclusion of one subject or thing is the inclusion of all other things, when the federal regulations excluded from use an interstate commerce, as too immature to produce wholesome meat, the carcasses of calves under three weeks of age, they by implication authorized such use to be made of the carcasses of calves above the age of exclusion, thereby recognizing them as articles of commerce; and, since dressed weight is

not there mentioned, it is not made a controlling element. Articles recognized by Congress as subjects of interstate commerce cannot be held to be otherwise. In *Leisy v. Hardin*, 135 U. S. 100, 10 Sup. Ct. 681, 34 L. Ed. 128, the court, speaking through Mr. Chief Justice Fuller, said: "Whatever our individual views may be as to the deleterious or dangerous qualities of particular articles, we cannot hold that any articles which Congress recognizes as subjects of interstate commerce are not such, or that whatever are thus recognized can be controlled by state laws amounting to regulations, while they retain that character. Although, at the same time if directly dangerous in themselves, the state may take appropriate measures to guard against injury before it obtains complete jurisdiction over them. To concede to a state the power to exclude, directly or indirectly, articles so situated, without congressional permission, is to concede to a majority of the people of a state, represented in the state legislature, the power to regulate commercial intercourse between the states, by determining what shall be its subjects, when that power was distinctly granted to be exercised by the people of the United States, represented in Congress, and its possession by the latter was considered essential to that more perfect union which the Constitution was adopted to create." See, also, *License Cases*, 5 How. (U. S.) 504, 12 L. Ed. 256; *Schollenberger v. Pennsylvania*, 171 U. S. 1, 18 Sup. Ct. 757, 43 L. Ed. 49; *Austin v. Tennessee*, 179 U. S. 343, 21 L. Ed. 132, 45 L. Ed. 224. As has many times been held, commerce among the states comprehends intercourse for the purposes of trade in any and all its forms, including the transportation, purchase, sale, and exchange of commodities between the citizens of different states, and the power to regulate, conferred upon Congress by the commercial clause, is one without limitation. To regulate commerce is to prescribe the rules by which it shall be governed, that is, the conditions upon which it shall be conducted, to determine how far it shall be free and untrammelled, how far it shall be subject to duties and other exactions, and how far it shall be prohibited. *Welton v. Missouri*, 91 U. S. 275, 23 L. Ed. 347; *Gloucester Ferry Co. v. Pennsylvania*, 114 U. S. 196, 5 Sup. Ct. 826, 29 L. Ed. 158. The purpose of a statute, in whatever language it may be framed, must be determined by its natural and reasonable effect. *Henderson v. Mayor of N. Y.*, 92 U. S. 259, 23 L. Ed. 543; *Reid v. Colorado*, 187 U. S. 137, 23 Sup. Ct. 92, 47 L. Ed. 108. Viewed by this rule, the purpose of the statute in question, as far as it is applicable to this branch of the case, is plain. To keep with intent to ship out of this state, for food purposes, the flesh of a calf within the specified age or weight, is made criminally punishable, the natural and reasonable effect of which is to prohibit, for the purposes named, intercourse with another state for the purpose of trade in such meat. Yet that class of commerce which admits and requires uniformity of regulation, affecting all the states alike, includes the transportation, purchase, sale, and exchange of commodities. Clearly by those provisions of the statute the state legislature seeks to interfere directly with the freedom of interstate commerce, which is an encroachment upon the exclusive power of Congress. *Brown v. Maryland*, 12 Wheat. (U. S.) 419, 6 L. Ed. 678; *Hannibal & St. Joseph R. R. Co. v. Husen*, 95 U. S. 465, 24 L. Ed. 527; *Hall v. De Cuir*, 95 U. S.

485, 24 L. Ed. 547; *County of Mobile v. Kimball*, 102 U. S. 691, 26 L. Ed. 238; *Walling v. Michigan*, 116 U. S. 446, 6 Sup. Ct. 454, 29 L. Ed. 691; *Coe v. Errol*, 116 U. S. 517, 6 Sup. Ct. 475, 29 L. Ed. 715; *Brown v. Houston*, 114 U. S. 622, 5 Sup. Ct. 1091, 29 L. Ed. 257; *Robbins v. Shelby County Taxing Dist.*, 120 U. S. 489, 7 Sup. Ct. 592, 30 L. Ed. 694; *Lake Shore & M. S. R. Co. v. Ohio ex rel. Lawrence*, 173 U. S. 285, 19 Sup. Ct. 465, 43 L. Ed. 702; *Caldwell v. North Carolina*, 187 U. S. 622, 23 Sup. Ct. 229, 47 L. Ed. 336; *State v. Pratt*, 59 Vt. 590, 9 Atl. 556; *Vt. & Can. R. R. Co. v. Cen. Vt. R. R. Co.*, 63 Vt. 1, 21 Atl. 262, 731, 10 L. R. A. 562.

Some of the cases here cited will be more particularly noticed. *Brown v. Maryland* involved the constitutionality of a statute of Maryland requiring the importer of foreign articles to take out a license before he should be permitted to sell his imported goods. It was held that the right to sell was connected, as an inseparable incident, with the law permitting importation; that any penalty inflicted on the importer for selling the articles in his character of importer was in opposition to the act of Congress authorizing importation; and that any charge on the introduction and incorporation of the articles into and with the mass of property in the country was hostile to the power given to Congress to regulate commerce. In answer to the contention that his construction of the power to regulate commerce would abridge the acknowledged power of a state to tax its own citizens, or their property within its territory, the court, through Mr. Chief Justice Marshall, said: "We admit this power to be sacred; but cannot admit that it may be used so as to obstruct the free course of a power given to Congress. We cannot admit that it may be used so as to obstruct or defeat the power to regulate commerce. . . . If the states may tax all persons and property found on their territory, what shall restrain them from taxing goods in their transit through the state from one port to another for the purpose of re-exportation? The laws of trade authorize this operation, and general convenience requires it. Or what should restrain a state from taxing any article passing through it from one state to another for the purpose of traffic? Or from taxing the transportation of articles passing from the state itself to another state for commercial purposes? These cases are all within the sovereign power of taxation, but would obviously derange the measures of Congress to regulate commerce, and affect materially the purpose for which that power was given."

In *Hannibal & St. Joseph R. R. Co. v. Husen*, 95 U. S. 465, 24 L. Ed. 527, a statute of Missouri directly prohibited the introduction into the state of all Texas, Mexican, or Indian cattle during eight months of each year, without any distinction between such as might be diseased and such as were not, and made any person who should bring in such cattle in violation of these provisions liable for all damages sustained on account of disease communicated by them. The suit was to recover such damages. The single question was whether the statute was in conflict with the commerce clause of the federal Constitution. It was held to be a plain regulation of interstate commerce; a regulation extending to prohibition; that, whatever may be the power of a state over commerce which is completely internal, it can no more prohibit or regulate that which is interstate than it can that which is

with foreign nations; that power over one is given by the Constitution to Congress in the same words as it is given over the other, and in both cases it is necessarily exclusive.

In *Robbins v. Shelby County Taxing Dist.*, 120 U. S. 489, 7 Sup. Ct. 592, 30 L. Ed. 694, the court had before it the question whether it is competent for a state to levy a tax or impose any other restriction upon the citizens or inhabitants of other states for selling or seeking to sell their goods in such state before they are introduced therein. It was held not to be within the power of a state; for to tax the sale of such goods, or the offer to sell them, before they are brought into the state, is clearly a tax on interstate commerce itself.

In *Coe v. Errol*, 116 U. S. 517, 6 Sup. Ct. 475, 29 L. Ed. 715, the real question was whether logs intended for exportation to another state, and partly prepared for that purpose by being deposited at the place of shipment, were subject to taxation like other property in the state. It was held that the logs were not exports, nor in process of exportation, until they were committed to the common carrier for transportation out of the state to the state of their destination, or had started on their ultimate passage to that state; that until then it was reasonable to regard them as not only within the state of their origin, but as a part of the general mass of property there and liable to taxation, if not taxed by reason of their being intended for exportation. The court, through Mr. Justice Bradley, said: "Of course, they cannot be taxed as exports, that is to say, they cannot be taxed by reason or because of their exportation or intended exportation, for that would amount to laying a duty on exports, and would be a plain infraction of the Constitution, which prohibits any state, without the consent of Congress, from laying any imposts or duties on imports or exports; and, although it has been decided (*Woodruff v. Parham*, 8 Wall [U. S.] 123, 19 L. Ed. 382) that this clause relates to imports from and exports to foreign countries, yet, when such imports or duties are laid on imports or exports from one state to another, it cannot be doubted that such an imposition would be a regulation of commerce among the states, and therefore void, as an invasion of the exclusive power of Congress."

In *Caldwell v. North Carolina*, 187 U. S. 622, 23 Sup. Ct. 229, 47 L. Ed. 336, the plaintiff in error was convicted in the state court for a violation of an ordinance requiring a license fee from persons engaged in selling and delivering picture frames or pictures. As an employe of a foreign corporation of Illinois, he went to the state of North Carolina for the purpose of delivering certain pictures and frames for which contracts of sale had previously been made by other employes of the corporation, who had preceded him there. The sender of the goods in the former state was the consignee in the latter. The court of last resort in North Carolina, affirming the conviction in the lower court, put its decision on the ground that there was a distinction between a case where the goods were shipped by the seller in one state direct to the purchasers in another, as in *Brennan v. Titusville*, 153 U. S. 289, 14 Sup. Ct. 829, 38 L. Ed. 719, where it was held that the tax imposed was upon interstate commerce, and a case where the goods were not shipped direct to the purchasers, but to the vendor, and by his agent then delivered to the pur-

chasers. It was held by the federal Supreme Court that this difference did not deprive the transaction of its character as interstate commerce. Mr. Justice Shiras, speaking for the court, said: "It would seem evident that, if the vendor has sent the articles by an express company, which should collect on delivery, such a mode of delivery would not have subjected the transaction to state taxation. The same could be said if the vendor himself, or by a personal agent, had carried and delivered the goods to the purchaser. That the articles were sent as freight by rail, and were received at the railroad station by an agent who delivered them to the respective purchasers, in no wise changes the character of the commerce as interstate."

Moreover, the statutory provisions under consideration are not within the police power of the state. Whatever may be the extent of that power respecting domestic order, morals, health, and safety, it cannot be exercised over a subject confided exclusively to the commercial power of Congress. *Hannibal & St. Joseph R. R. Co. v. Husen*, 95 U. S. 465, 24 L. Ed. 527. To the same effect is the case of *Henderson v. Mayor of N. Y.*, 92 U. S. 259, 23 L. Ed. 543. There the court, speaking through Mr. Justice Miller, said it was clear, from the nature of our complex form of government, that, whenever the statute of a state invades the domain of legislation which belongs exclusively to the Congress of the United States, it is void, no matter under what class of powers it may fall, or how closely allied to powers conceded to belong to the states. We hold, therefore, that so much of the act of 1906 as makes it punishable to keep with intent to ship out of this state, for food purposes, the flesh of a calf which was less than four weeks old, or weighed less than 50 pounds, dressed weight, when killed, is in conflict with the commerce clause of the Constitution of the United States and void. It follows that all counts in the information are insufficient, except the eleventh and twelfth, which will now be considered.

These two counts are for keeping with intent to sell for food purposes the flesh of a number of calves less than four weeks old. The statute does not say "with intent to sell" in this state, but only "with intent to sell for food purposes," without saying where. The counts follow the statute in this regard. No contention is made but that the state has full and exclusive control over its purely domestic commerce, and the line of distinction between such commerce and that which is protected by the commercial clause of the federal Constitution we have no occasion now to consider.

The respondent says that, if the statute read "with intent to sell in this state," no question could be made; but that, taking this part of the statute in connection with the prohibition of shipping out of the state, it is clear that the sale anywhere, whether within or without the state, is forbidden, and that, therefore, the cases applicable to the other branch of the case are controlling here. But the statute is to be construed as not intended to have extraterritorial effect, but only an intraterritorial effect. This is the rule for construing statutes in this respect which use general words, unless they clearly indicate a different intent, which this statute does not. In *re Hickok's Est.*, 78 Vt. 259, 62 Atl. 724; *Colquhoun v. Hedden*, L. R. 25, Q. B. D. 129; *Black, Int. Laws*, 91; 2 *Suth. Stat. Const.* (2d Ed.) Sec. 573. The statute means, there-

fore, the same as though it read "with intent to sell in this state." As the respondent concedes that with this construction the validity of the statute in this respect cannot be questioned, it requires no further consideration. That the statute is severable, and may be held unconstitutional to the extent before indicated without invalidating that part on which these two counts are based, there can be no doubt. The cases of *State v. Scampini*, 77 Vt. 92, 59 Atl. 201, and *State v. Abraham*, 78 Vt. 53, 61 Atl. 766, are full authority.

It is said, however, that these counts are bad in that the place of the intended sale is not laid within this state. The eleventh count alleges that the respondent "of Shelbourne in said county of Chittenden, on the 10th day of March, 1907, did then and there keep with intent to sell," etc. The twelfth count is the same in form. Had the words "then and there" been inserted immediately following the word "intent," the allegation of time and place would have been with sufficient certainty, and in the form usually adopted in allegations of connected acts. Yet in contemplation of law the allegation is so made; for, when the offense charged is a misdemeanor, if time and place be added to the first act alleged, it shall be deemed to be connected with all the facts subsequently alleged. *State v. Scampini*, above cited.

The pro forma judgment of the county court as to all the counts, except the eleventh and twelfth, is reversed, the demurrer sustained, and the counts adjudged insufficient. As to the eleventh and twelfth counts the pro forma judgment of the county court is affirmed. Cause remanded.

Tyler, J., dissents.

INTERNAL REVENUE.

(T. D. 1306.)
Distilled Spirits.

Sugar coloring of double-stamped spirits not permissible. The addition of caramel or burnt sugar to spirits constitutes rectification and necessitates a rectifier's stamp.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., February 4, 1908.

Gentlemen: Yours of the 1st instant is received asking whether or not, in view of the decision of the Supreme Court in the *Graf* case, it will be permissible to add sugar coloring to double-stamped packages of whisky that have just been tax paid and while they are still on the distillery premises "but not within the bonded zone."

In reply, you are advised that it is not permissible under the internal revenue laws to add sugar coloring to the contents of a double-stamped package.

This office has held continuously, in the absence of any judicial determination to the contrary, that the addition of caramel or burnt sugar to spirits constitutes rectification. Consequently, when it is desired to add caramel or other coloring material to spirits it must be done after notice under section 3317, Revised Statutes, amended, and under a rectifier's stamp, in accordance with the regulations governing the rectification of spirits, actual or constructive.

Respectfully,

JOHN G. CAPERS, Commissioner.

Messrs. ———, Chicago, Ill.

(T. D. 1307.)

Beverages.

Beverages containing less than one-half of 1 per cent of alcohol do not come within the consideration of the internal revenue laws either as to manufacture or sale.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., February 5, 1908.

Gentlemen: This office is in receipt of your letter of the 31st ultimo relative to the manufacture of soft drinks from malt and hops, and calling attention to previous rulings of this office as to the requirement of tax on a fermented liquor made from malt regardless of the percentage of alcohol contained, and as to the non-requirement of special tax for the sale of beverages containing less than one-half of 1 per cent of alcohol.

In reply, you are advised that after careful consideration I have reached the conclusion that, while section 3339, Revised Statutes, requires the payment of the tax of \$1 per barrel on all beer, lager beer, ale, porter, and other similar fermented liquors, the practical administration of the law necessitates the fixing of a point below which the alcoholic content is too inconsiderable to class the beverage as either of the liquors enumerated above, or similar thereto, or to bring same within the consideration of the internal revenue laws. The practice and rulings of this office have already fixed this point as one-half of 1 per cent in the case of sales of beverages of this character, and I see no sufficient reason for making a distinction between the manufacturer and dealer in this class of beverages. It is therefore held that beverages containing not more than one-half of 1 per cent of alcohol by volume do not come within the consideration of the internal revenue laws either as to manufacture or sale.

Respectfully,

JOHN G. CAPERS, Commissioner.

Mr. ———, Lexington, Ky.

INTERNAL REVENUE.

(T. D. 1299.)

Distilled Spirits—Bottled-in-Bond Whisky.

What the government stamp on bottled in bond goods guarantees as to purity or quality of the spirits. The government assumes no responsibility with respect to claims of dealers in advertising spirits.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., January 14, 1908.

Sir: Your favor of 8th instant is received, inclosing a newspaper advertisement of a certain brand of whisky, bottled in bond, in which the claim is made that the whisky so put up is guaranteed by the United States government as to purity, age, full strength, and full measure.

You ask if it is true that the government makes such guarantees.

In reply, you are advised that the internal-revenue strip stamp, when intact over the mouth of a bottled-in-bond bottle, while not guaranteeing the purity or quality of the whisky, does reasonably guarantee that the proof is not less than 100 per cent and the age as stated on the stamp. The act of March 3, 1897, forbids the addition of any material other than pure water during the process of bottling, and as this process is required by the act to be conducted in the

presence of a government officer it may be assumed that the spirits when bottled are as pure as when originally manufactured.

As to the quantity, this office by regulation has prohibited the use of undersized bottles and the practice of underfilling them by bottlers in bond, under penalty of seizure and forfeiture of the short-measure bottles.

The government assumes no responsibility whatever with respect to claims made by dealers in advertising spirits.

Respectfully,

J. C. WHEELER,

Acting Commissioner.

Mr. ————

INTERNAL REVENUE.

(T. D. 28735.)

Importation and Inspection of Tea Under the Act Approved March 2, 1897

(Circular No. 12.)

Treasury Department, February 4, 1908.

To Officers of the Customs and Others Concerned:

Upon the recommendation of the board of tea experts the following are fixed and established under the act of March 2, 1897, as the tea standards for the year 1908:

- No. 1. Formosa Oolong.
- No. 2. Foochow Oolong.
- No. 3. Congou.
- No. 4. India (use for Ceylon).
- No. 5. Ping Suey, green.
- No. 6. Country green.
- No. 7. Japan pan fired (use for sun dried).
- No. 8. Japan basket fired.
- No. 9. Japan, dust or fannings.
- No. 10. Capers (use for scented Orange Pekoe).
- No. 11. Canton Oolong.
- No. 12. Scented Canton.

JAMES B. REYNOLDS,

Acting Secretary.

INTERNAL REVENUE.

(T. D. 28739—G. A. 6716.)

Fruit Juice Containing Alcohol.

1. Percentage of Alcohol—How Determined.

The percentage of alcohol in wines and fruit juices is expressly required by paragraph 296, tariff act of 1897, to be determined for dutiable purposes in such manner as the Secretary of the Treasury shall by regulation determine.

2. Regulations of Secretary of Treasury.

These regulations applicable to importations under the present tariff act of 1897 are prescribed in Circular 108, issued July 24, 1897, published in T. D. 18201 and T. D. 15763.

3. Cherry Juice Dutiable under Paragraph 299, Act of 1897.

Cherry juice containing not more than 18 per cent of alcohol, *Held* dutiable under paragraph 299 of said act at 60 cents per gallon; if containing more than 18 per cent of alcohol, 60 cents per gallon, and in addition thereto \$2.07 per proof gallon on the alcohol contained therein, with proper deduction for allowance made in the reciprocity treaty applicable to the country of exportation.

United States General Appraisers, New York, February 4, 1908.

In the matter of protest 275108 of Ernst Feldmann against the assessment of duty by the collector of customs at the port of New York.

Before Board 3 (Waite, Somerville, and Hay, General Appraisers).

Somerville, General Appraiser: The importation consists of three casks of cherry juice, which was assessed for duty by the collector under paragraph 299 of the tariff act of 1897 at the rates there provided for cherry juice containing more than 18 per cent of alcohol. Said paragraph reads as follows:

"299. Cherry juice and prune juice, or prune wine, and other fruit juices not specially provided for in this Act, containing no alcohol or not more than eighteen per centum of alcohol, sixty cents per gallon; if containing more than eighteen per centum of alcohol, sixty cents per gallon, and in addition thereto two dollars and seven cents per proof gallon on the alcohol contained therein."

The importers contend that the assessment was erroneous and that the contents of the casks are dutiable only at 60 cents per gallon under said paragraph, on the ground that the juice contains less or not more than 18 per cent of alcohol. The assessment seems to have been made by the collector under the provisions of section 3 of the present tariff act and the reciprocity treaty with Germany (T. D. 22353). This assessment reduced the additional duty provided for in said paragraph to \$1.75 per proof gallon on the alcohol. The importer produced an affidavit of the manufacturer in Germany who states that the cherry juice in question was fortified by him with 17.5 to 18 per cent of alcohol, and in no case with more than that percentage. Analysis of the juice made by the government chemist at the port of New York, as shown in his report, resulted as follows: Cask No. 18537 contains 18.2 per cent of absolute alcohol by volume, cask No. 18538 contains 18.3 per cent, and cask No. 18539 contains 18 per cent. The witness who made the analyses, and who showed himself to be an educated chemist, testified to the correctness of the results above indicated. He further stated that in making these analyses he followed the regulations of the Secretary of the Treasury for determining the percentage of alcohol in wines and fruit juices, as published in T. D. 15763, which was continued in full force and effect under the tariff act of July 24, 1897, in Circular 108 (T. D. 18201). The Secretary of the Treasury was expressly authorized to adopt such regulations under the last clause of paragraph 296 of the present tariff act, which reads as follows:

"The percentage of alcohol in wines and fruit juices shall be determined in such manner as the Secretary of the Treasury shall by regulation prescribe."

A similar provision existed in the tariff act of 1894. The method prescribed is that by distillation, which is fully and accurately described in detail in the regulations above cited.

While the testimony shows that this method was pursued by the government chemist, the testimony of the importers shows that it was not pursued by the manufacturer or the importer in the analysis which he is stated to have made. Inasmuch as one of the casks in question, No. 18539, contains not more than 18 per cent of alcohol, the protest claiming that its contents are dutiable at 60 cents per gallon is sustained as to this particular cask, and a reliquidation will follow accordingly. The protest as to the other two casks containing more than 18 per cent of alcohol is overruled and the assessment of duty as made by the collector is affirmed.

DIRECTORY **OF FOOD CONTROL OFFICIALS**

ARIZONA.**PHOENIX.****TERRITORIAL BOARD OF HEALTH.**

Robert M. Dodsworth, M. D., Superintendent of Public Health, Secretary of Board.

CALIFORNIA.**SAN FRANCISCO.**

STATE DAIRY AND FOOD BUREAU, 114 CALIFORNIA STREET.
 John A. Bliss of Alameda County, Chairman and Treasurer.
 Wm. H. Saylor, Secretary and Chemist.

CANADA.**OTTAWA.****DEPARTMENT OF INLAND REVENUE.**

Wm. Templeman, Minister of Inland Revenue.
 W. J. Garold, Deputy Minister.
 Anthony McGill, Assistant to Chief Analyst.
 S. E. Wright, Assistant Analyst.
 E. Davidson, Assistant Analyst.
 A. Lemoine, Assistant Analyst.
 J. A. Valin, Assistant Analyst.

COLORADO.**DENVER.****PURE FOOD AND DRUG DIVISION.**

Wilbur F. Cannon, Inspector.
 A. B. McGaffey, Deputy Inspector.
DAIRY DEPARTMENT.
 R. G. D. Bishopp, Dairy Commissioner.
 J. J. Gerardet, Deputy Dairy Commissioner.

CONNECTICUT.**HARTFORD.**

J. B. Noble, Commissioner.
 R. O. Eaton, Deputy Commissioner.
 John Phillips Street, M. S.

DISTRICT OF COLUMBIA.**WASHINGTON, D. C.****HEALTH DEPARTMENT.**

Health Officer, William C. Woodward.
 Chemist, R. L. Lynch.

GEORGIA.**ATLANTA.**

T. G. Hudson, Commissioner of Agriculture.
 R. F. Wright, Assistant Commissioner of Agriculture.
 John M. McCandless, State Chemist.

IDAHO.**BOISE.****STATE DAIRY, PURE FOOD AND OIL COMMISSION.**

J. R. Field, Commissioner, New Plymouth.
 Prof. S. R. Macy, State Chemist

ILLINOIS.**CHICAGO.**

Alfred H. Jones, State Food Commissioner.
 H. E. Schuknecht Assistant Food Commissioner.
 T. J. Bryan, State Analyst.
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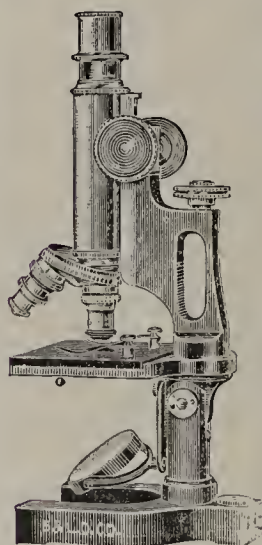
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WHAT NEW YORK EATS ANNUALLY.

Butter, pounds	82,000,000
Lard, pounds	35,000,000
Coffee, pounds	35,000,000
Cheese, pounds	12,000,000
Tea, pounds	9,000,000
Sugar, pounds	215,000,000
Flour meal, pounds	475,000,000
Rice, pounds	16,000,000
Fresh beef, pounds	268,000,000
Salt beef, pounds	55,000,000
Poultry, pounds	51,000,000
Fish, pounds	75,000,000
Prunes, pounds	6,000,000
Raisins, pounds	6,000,000
Currants, pounds	2,000,000
Dates, pounds	1,300,000
Figs, pounds	1,350,000
Molasses, gallons	250,000

—Chicago Tribune.

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THE AMERICAN FOOD JOURNAL



Vol. III No. 4

CHICAGO, APRIL 15, 1908

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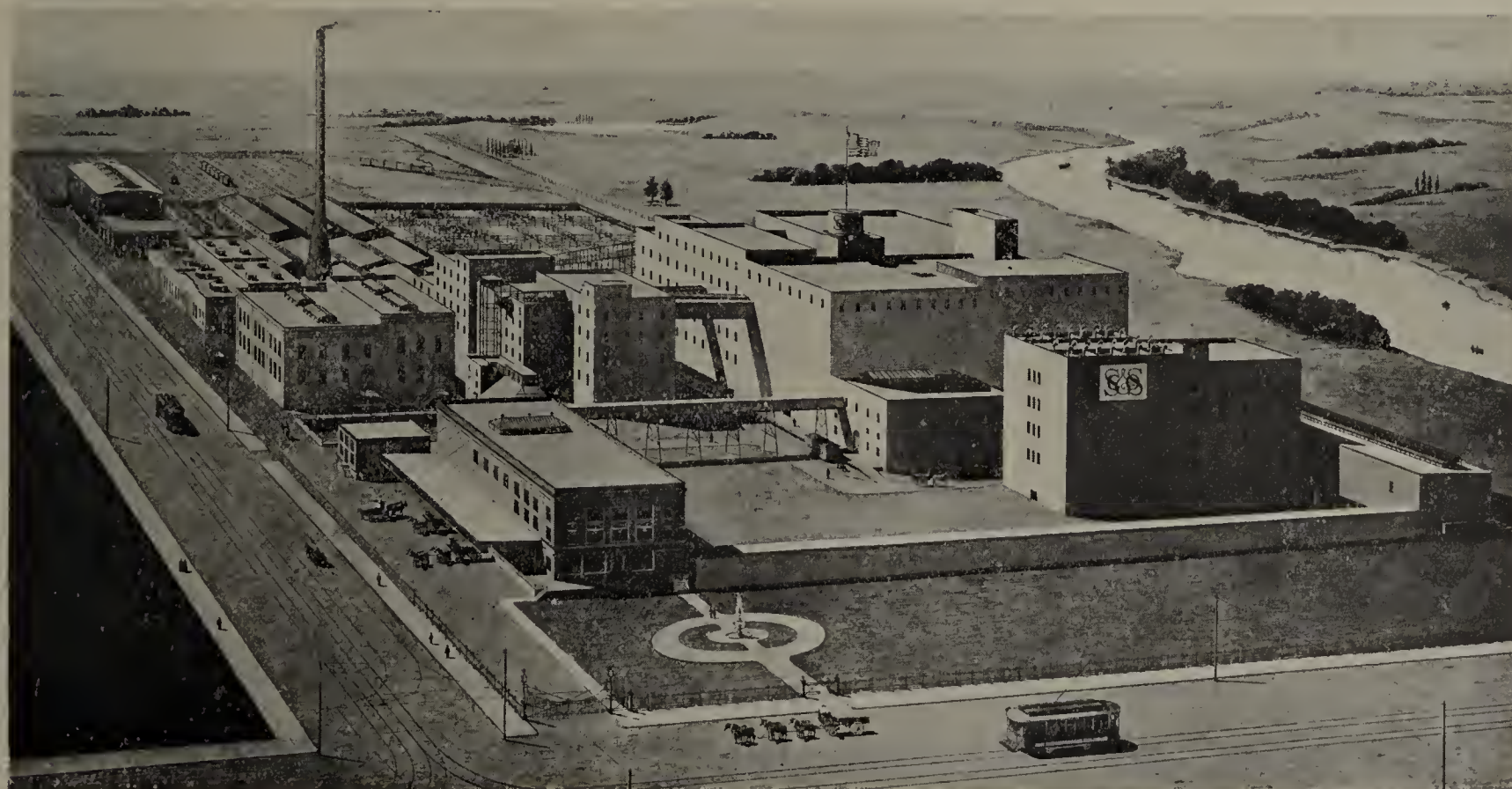
Vol. 3. No. 4.

CHICAGO, APRIL 15, 1908.

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State Reports, Packing Plants Clean and Sanitary

The report of the inspection of Schwarzschild & Sulzberger Co., and Libby, McNeill & Libby, by the Illinois Food Commission, is highly complimentary to these firms, and indicates that nowhere in the world are meat products prepared with such care, skill and cleanliness as in these two plants at the Union Stock Yards, Chicago, Ill. The American Food Journal is glad to publish photographs of some of the interesting features of these plants, showing Government and State Officials, supervising and inspecting the different departments where animals are killed, dressed, cut processed, packed and prepared for market. They confirm by eye witness the verbal report of the Pure Food Inspectors.



BIRDS EYE VIEW OF SCHWARZCHILD & SULZBERGER PLANT.

**OFFICIAL REPORT OF STATE INSPECTORS ON
SCHWARZSCHILD AND SULZBERGER CO.**

Hon. A. H. Jones,
State Food Commissioner,
Robinson, Ill.

Dear Sir: We inspected the slaughter and packing house of Schwarzschild & Sulzberger Co., Union Stock Yards, as to sanitary conditions and their methods of putting up their food products.

We found that they have in the neighborhood of 1,800 employes, of whom about 40 are women. We found that they put up about half a million pounds of oleomargarine oil each week, which is made from the best of beef fat. All beef fat except the very best is used in the making of tallow. All hog fat is used in

take their separate parts in making this investigation. After it has passed each of these men there are two final men who each make an inspection of the different things reported by the other inspectors preceding them. By this method a system of inspection is in force that would be heard to beat.

On the preliminary trip we found some hogs that were reported suspected, and on inquiry of the final inspector he endeavored to find the defect in the hog. Being unable to do so, he took the inspector's number and went to the man who had first marked the animal "suspected," then returned and showed us in a moment what was wrong with the hog. This proved to be tuberculosis, manifest in some of the remote parts of the animal, which in the ordinary butchering



OFFICE AND SHIPPING DEPARTMENT SCHWARZCHILD & SULZBERGER.

making lard, except that all entrail lard is used also in making oleomargarine. All of the oleomargarine oil manufactured by these people is exported, a very large part of it going to Europe while a small part goes to Asia and to other eastern countries.

We found in the hog-killing department five veterinary surgeons and two experts whose duty it is to inspect each animal after it has been slaughtered. Each of these inspectors has some particular part of the animal to inspect after it is slaughtered. The first man inspects the maxillary glands, the next man inspects the viscera and visceral glands, and the others

of hogs in a country community would never be detected and would be sold for healthy meat. In this inspection where the infection is but barely begun, or in other words where the infection is yet incipient the animal is not condemned for all purposes. It requires about 240° Fahr. to render lard, this being about 28° above boiling. When any food product is submitted to this high temperature it destroys imperfections and unhealthful conditions existing, and the fat from animals that might for ordinary use be condemned—for this temperature will render them healthful—is rendered and sold as lard, which by reason of the ex-

tremely high temperature to which it is submitted is made entirely healthful.

In the slaughter departments of beeves and sheep there are a number of inspectors, and the same regu-



BEEF KILLING SCHWARZSCHILD @ SULZBERGER PLANT



HOG KILLING SCHWARZSCHILD @ SULZBERGER PLANT.

lations are made and the same care taken as in the preparation of food products.

After meats have been prepared for the market, and after inspection by the Federal Department, this company has inspectors of its own whose duties are to make a thorough inspection of each piece of meat before it is removed from their place of business and placed on the market. These inspectors use great care. Mr. Hoey and I in watching the inspection made by some of these people in the packing department that has charge of the pork hams, bacon and beef hams, saw that the inspectors had "triers" with which they penetrated the hams and bacon and by that means tested to see if the meat was sweet and wholesome; and in the event that any of the meat thus inspected was found to be unwholesome or in disagreeable odor it was thrown to one side.

In this establishment they have a beef-killing, hog-killing and sheep-killing department; a beef-cutting, hog-cutting and beef-casting department, and canning and packing departments besides a number of different places for taking care of each of the products.

These people in the curing of their meats use saltpeter, sugar, salt and water. They use 4 ounces of saltpeter to 100 pounds of meat.

In their manufacture of lard they make—

First. Pure lard, which is hog fat pure, and simple.

Second. Compound lard, which is a compound of hog fat, beef fat and cotton seed oil.

Third. Kettle lard. This is pure lard, and the only difference between it and what is called pure lard is that it is rendered in open kettles after the manner of lard rendered in the country.

We made a very thorough investigation of the dif-

ferent departments in this establishment, as to their cleanliness, and found that they have taken every precaution that could be reasonably taken in the preparation and care of their products.

They have ample toilet rooms and wash rooms for their assistants—rooms in which their employes before going to work may divest themselves of their street apparel and place same in lockers, and after close of their work may again take it and leave their work clothes in the building. They also have provided in separate rooms for men and women ample toilet rooms with shower baths and everything that is possible to provide for such services. They have in their employ a physician who has proper appliances and hospital arrangements, also ambulances and everything to take the proper care of them.

As reported to you in regard to the sanitary conditions of other packing and slaughtering houses in the stockyards, we were very much surprised at the cleanliness with which this entire plant is marked.

Respectfully submitted,

J. C. EAGLETON,

F. J. HOEY,

State Food Inspectors.

OFFICIAL REPORT OF STATE INSPECTORS ON LIBBY, McNEIL & LIBBY.

Hon. A. H. Jones,

Robinson, Illinois.

Dear Sir: Pursuant to your instructions, Mr. Hoey and I, went out to the Union Stock Yards and visited the plant of Libby, McNeil & Libby. We were taken in charge by Mr. H. W. Kruger, who showed us every courtesy possible, and



LIBBY, McNEIL & LIBBY'S WHITE ENAMEL KITCHEN COOK ROOM

we, in company with him, visited every part of their packing establishment.

This company does not kill any beeves, but procure their meat from Swift & Company. They at present have in their employ about 1,600 people, about half their usual force. We were in the cutting room after



Inspectors Eagleton and Hoey Investigating Packing of Ox Tongues at Libby, McNeil & Libby's White Enamel Kitchen.

the day's work had been completed, and in the other part while the work was going on. The sanitary condition is as nearly perfect as it is possible for a thing of that kind to be. Every floor in the building has been carefully cared for; the walls are of enameled brick and there are no square corners in the floors, ceilings nor in the corners of the rooms, the corners being laid with especially curved enameled brick.

In the canning department the cans are made and transported to the different parts during their manufacture by machinery and are finally placed in position



Packing Boneless Chicken.
Libby, McNeil & Libby's White Enamel Kitchen.

to be filled without being touched by any hand more than one time after their manufacture is begun. Each piece of tin used in the manufacture, before being made into cans, is specially cleaned, and from that time forward is handled only by machinery.

A manicurist is employed, and is always on duty, and

at least once each week each one of the persons engaged in the packing of the meats have their hands manicured. We were told that this has been done for three years.

This company, in addition to packing meats, also



Samples of Previous Day's Packing Submitted to the Superintendent of Libby, McNeil & Libby,
(Inspectors Eagleton and Hoey and an Employee.)

carries on quite an extensive business in canning and preserving fruits.

Mr. Hoey and I, before we left, took a few samples of their products, and have handed them over to the



Employee of Libby, McNeil & Libby Having Hands Manicured
by Special Artist Employed by the Company.

laboratory. We only had the afternoon to go out there, on account of having hearings set for every day, including to-day, and I have no idea how much time it would take to visit all the different establishments

out there, but it surely would take a month to inspect all of them as thoroughly as Mr. Hoey and I went over this plant.

I think it would be impossible to keep the establishment in better condition than it is, and it would be a physical impossibility to use more caution in the preparing of their fruits and meats. If there is anything wrong with the samples that we brought I presume it must have been deliberately added, because there is every precaution to keep the products from becoming

and manner of handling live stock and meat food products. The regulations are designated as B. A. I. order 150.

The rules governing the inspection of fresh slaughtered meats provide that all packing, meat canning, salting, rendering or similar establishments shall be rigidly inspected. The Secretary of Agriculture may exempt from inspection establishments operated by farmers, retail butchers or retail dealers supplying their customers. The law provides for a corps of



SEALING CANS IN VACUUM IN LIBBY, McNEIL & LIBBY'S WHITE ENAMEL KITCHEN

infected by their surroundings as it is possible to take.

If we get an opportunity, we will again go out this afternoon, but there are a number of people now in the office who are waiting for hearings, and we cannot tell how long it will take to get through with them.

Respectfully submitted,

J. C. EAGLETON,
State Food Inspector.

MEAT INSPECTION LAW IN FORCE.

The rules and regulations governing the inspection of meats and meat food products under the act approved on June 30, 1906, became effective April 1. In most instances, says the New York Commercial, the dealers, as a result of the long interval since the law was passed, have been able to make plans for observing the rules, and for this reason the fact that these regulations will now be enforced has caused little concern to them. The regulations provide against the use in interstate commerce and foreign commerce of meat and meat food products which are unfit for human food. Regulations are prescribed for the inspection

skilled inspectors, patrolmen and laborers. The use of the legend, "Inspected and passed," affixed to carcasses or packages of meat food products will be the guarantee to the purchaser that the product is fit for sale.

Of most concern to the jobbing grocer, the retailers and the consumer are the regulations covering meat food products. Under Section 8 meat food products are described as any article of food intended for human use which is derived or prepared in whole or in part from any edible portion of the carcass of cattle, sheep, swine or goats, if the said edible portion so used is a considerable and definite portion of the finished food. In the case of a mixture, the product will not be considered a meat food product unless the meat contained therein is a definite and considerable portion of the said mixture.

But where the mixture is prepared in a part of an official establishment, the sanitation of that part of the establishment will be supervised by the department, and the meat or meat food product will be inspected before it enters the said mixture. The mix-

ture shall not bear the meat-inspection legend or any simulation thereof. If any reference is made to federal inspection it shall be in the following form: "The meat contained herein has been inspected and passed at an establishment where federal inspection is maintained." Mixtures such as mince-meat, soups, etc., which come under this description and which are not officially labeled, are allowed in interstate and foreign commerce without further inspection, and without certificates, subject to the provisions and requirements of the food and drugs act of June 30, 1906, and the regulations made thereunder.

The following rules cover the most important features connected with the handling of meat food products:

No trade label bearing the words "U. S. Inspected and Passed," or any abbreviation or simulation thereof, shall be used on meat or meat food products which have not been inspected and passed under these regulations, and no trade label bearing the inspection legend, or any abbreviation or simulation thereof, shall be placed upon meat or meat food products except under the supervision of an inspector.

Tin containers, embossed or lithographed with the label as prescribed in Section 1, will be considered as bearing trade labels. On and after October 1, 1908, all sealed tin containers must have the number of the official establishment where packed, embossed, lithographed or printed thereon.

The essential features of a trade label are as follow, and shall appear upon each label: The true name of the product; the inspection legend; the establishment number.

The inspection legend, "U. S. Inspected and Passed," or an authorized abbreviation thereof, and the official establishment number in plain characters of uniform size, which shall be in proper proportion to the general lettering of the label, must be separately and prominently embodied in all trade labels.

In the case of meat contained in cartons, or in wrappers of paper, cloth, or other similar substance, the inspection legend and the official establishment number may be embodied in a sticker or seal of proportionate size prominently displayed with the trade label, but not necessarily a part of the trade label, such stickers or seals to be approved by the Department of Agriculture. It is not permissible to affix to meat or meat food products a detachable device of any kind which bears the inspection legend.

While labels to be affixed for foreign shipment may be printed in a foreign language, the same rules shall apply with reference to false labeling and the naming of ingredients as shall apply to goods prepared for domestic use. The inspection legend and the official establishment number must in all cases appear in English; but if desired they may in addition, literally translated, appear in the language of the country to which the package is destined.

USE OF DYES DEFINED.

Under regulation 22 the use of dyes, chemicals and preservatives is provided for as follows:

There may be added to meat or meat food products common salt, sugar, wood smoke, vinegar, pure spices, and saltpeter. Only such coloring matters as may be designated by the Secretary of Agriculture as being harmless may be used, and these only in such manner as the Secretary of Agriculture may designate.

Substances necessary for the preparation, clarification,

or refining of meat food products will be permitted to be used subject to the approval of the Secretary of Agriculture, provided they are eliminated from the meat food products during the further process of manufacture.

Meat or meat food products which have been inspected and passed and are so marked and are alleged to be unsound, unwholesome, or otherwise unfit for human food may be returned from one state or territory or the District of Columbia to any jobber, wholesaler, or other dealer from whom the said meat or meat food product was purchased, if a written permit, in duplicate, for such shipment be first obtained from the chief of the bureau of animal industry.

In all such shipments both the original and duplicate copies of the permits shall be surrendered to the carrier accepting the meat or meat food product, and the carrier shall require the shipper to furnish two copies of the form of certificate hereinafter given. One of these certificates and the duplicate copy of the permit shall be retained by the carrier, and the other copy of the certificate, together with the original permit, shall be mailed by the carrier to the chief of the bureau of animal industry, Washington, D. C. If the meat or meat food product which is shipped under this section shall prove to be unsound, unwholesome, or otherwise unfit for human food, it may not be re-shipped in interstate commerce as a food product.

CORN BELT RINGS PRAISE OF WILSON.

Washington, April 1.—Great news for the corn belt was given out at the Department of Agriculture today. Out in Iowa, Kansas, Nebraska and other states in the corn belt, the people are ringing bells and throwing hats in the air in glad acclaim of James Wilson, Secretary of Agriculture.

There is to be a corn exposition at Omaha in December. If Secretary Wilson has his way about it the government will equip a station there that will demonstrate all the virtues of corn from the production of the rough on the ear to the luscious corn puddings that mother used to make. All that Secretary Wilson needs to demonstrate that corn is the greatest cereal raised on the farm is money and plenty of it.

When "Tama Jim" Wilson first took hold of the Department of Agriculture, as he himself has admitted, he found in it nothing but a few roll-top desks and a half dozen half-fed scientists. Since then the department has grown. It is now crowded with roll-top desks and numerous well-fed scientists. Give Secretary Wilson the money and a place to stand and he will move the earth.

The corn exposition to be conducted at Omaha is designed to exploit the products of the corn belt. Secretary Wilson has given the project his indorsement. He is willing to take part in it. Yesterday the house rejected an amendment in the agricultural bill providing an appropriation to enable the government to put up an exhibit at Omaha setting forth the virtues of corn.

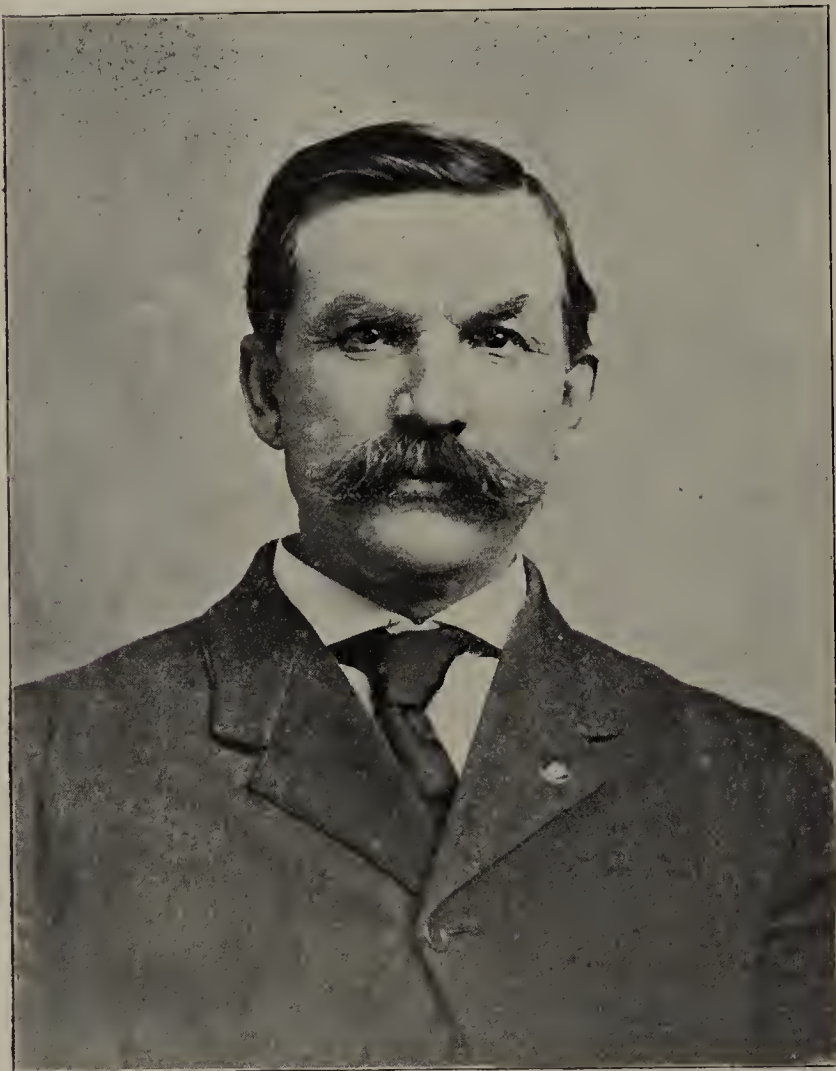
To-day Secretary Wilson announced that the department had money enough to participate in the corn exposition. The news was flashed from one end of the corn belt to the other. In the corn belt to-night bonfires were lit, the church bells rang, strong men shouted with glee, and fair women were gay and happy, inspired by "Tama Jim" Wilson, Secretary of Agriculture.—*New York Commercial*.

FEDERAL AND STATE CONTROL OF WHAT WE EAT AND DRINK.

BY PROF. A. H. WHEATON.

In the pure food department we receive many letters of inquiry in regard to the National and State pure food laws. Some have an idea that we could copy the National pure food and drug act, approved June 30th, 1906, and it would act as a panacea for all our ills, and prevent all the adulterations which are found in foods, hard and soft drinks, drugs and medicines. But it is a fixed fact that the National law only seeks to govern interstate commerce. The National law was held in abeyance by the interests of large manufacturers for fifteen years, and was passed at the earnest solicitation of states which had a pure food law.

The several states found that it was impossible to go beyond their borders to prosecute a dealer in or manufacturer who lives in another state, and that



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the retailer or dealer in these preserved and adulterated articles is not to blame, as a rule, for having them in his possession. While the law prescribes a penalty which could be inflicted upon the retailer, ever commissioner and state officer knows that the man who should be punished is the man at the head of the big corporation or big manufacturer who puts up the goods, labeling them all as the best ever. This demand from the states became so strong that finally President Roosevelt, with his big stick, declared that a pure food law *must* be passed, and that if it was not passed, he would call an extra session of Congress for that purpose. This caused the House of Representatives and the Senate to sit up and take notice. It also caused the manufacturers to get busy with their batteries of defense.

The result was, that a great many provisions crept into the National law, that should not have been placed there. For instance, a regulation in regard to the sale of codfish put up in the form of bricks. The representatives of the packing concerns putting up these goods, insisted that it was impossible to preserve these fish with common salt and that a preservative of some kind was a necessity. It was found that the votes of these representatives were necessary to pass the bill, and so it came about that those who were pushing the pure food bill, admitted that a preservative could be applied externally on this class of goods. I will quote from Circular No. 21, from the office of the Secretary of Agriculture on these points. Regulation 14. External Application of Preservatives. Poisonous or deleterious preservatives shall only be applied externally, and they and the food products shall be of a character which shall not permit the permeation of any of the preservative to the interior, or any portion of the interior, of the product. When these products are ready for consumption, if any portion of the added preservatives shall have penetrated the food product, then the proviso of section 7, paragraph 5, under "Foods," shall not obtain, and such food products shall then be subject to the regulations for food products in general.

Section 7 reads,—No substance may be mixt or packed with a food product which will reduce or lower its quality or strength. Not excluded under this provision are substances properly used in the preparation of food products for clarification or refining, and eliminated in the further process of manufacture. Dr. Wiley had a provision inserted in the National law as follows,—Provided, however, that such package of fish be accompanied by a formula printed in the English language, the use of which would eliminate all trace of the preservative used. Knowing as every chemist does, that this was an utter impossibility; that a preservative to be of any efficiency whatever, must be absorbed and taken up by the fibrous cells of the fish, and when once incorporated, it cannot be eliminated by soaking in water or by any other process, unless the fish became entirely destroyed.

Regulation 17. Label. Under the head of Misbranding, section 8, says: The term "label" applies to any printed, pictorial, or other matter upon, or attached to any package of a food or drug product, or any container thereof. The principal label shall consist, first, of all words which the food and drug act of June 30th, 1906, specifically requires, to-wit,—the name of the substance or product; the name of place of manufacture in the case of food compounds, mixtures, or blends; the words "compound," "mixture," or "blend"; or other words designating the substances or their derivatives and proportions required to be named in the case of drugs and foods. All these required words shall appear upon the principle label with no intervening descriptive or explanatory reading matter. Second, if the name of the manufacturer and place of manufacture are given, they shall also appear upon the principal label. Third, elsewhere upon the principal label other matter may appear in the discretion of the manufacturer. The principal label on foods or drugs for domestic commerce shall be printed in English (except as provided in Regulation 19), with or without the foreign label in the language of the country where the food or drug

product is produced or manufactured. The size of type shall not be smaller than 8 point (brevier) caps; Provided, that in case the size of the package will not permit the use of 8 point cap type the size of the type may be reduced proportionately.

The form, character, and appearance of the labels, except as provided above, are left to the judgment of the manufacturer. Descriptive matter upon the label shall be free from any statement, design, or device regarding the article or the ingredients or substances contained therein, or quality thereof, or place of origin, which is false or misleading in any particular. An article containing more than one food product or active medicinal agent is misbranded if named after a single constituent. In the case of drugs the nomenclature employed by the United States Pharmacopoeia and the National Formulary shall obtain. The term "design" or "device" applies to pictorial matter of every description, and to abbreviations, characters, or signs for weights, measures, or names of substances. The use of any false or misleading statement, design, or device shall not be justified by any statement given as the opinion of an expert or other person, appearing on any part of the label, nor by any descriptive matter explaining the use of the false or misleading statement, design, or device. The regulation regarding the principal label will not be enforced until October 1, 1907, in the case of labels printed and now on hand, whenever any statement therein contained which is contrary to the food and drug act, June 30th, 1906, as to character of contents, shall be corrected by a supplemental label, stamp, or poster. All other labels now printed and on hand may be used without change until October 1st, 1907.

Extract from regulation 19. Character of name. A simple or unmixt food or drug product not bearing a distinctive name shall be designated by its common name in the English language, or, if a drug, by any name recognized in the United States Pharmacopoeia or National Formulary. No further description of its components or qualities is required, except as to content of alcohol, morphine, etc.

Extract from regulation 20. Distinctive Name. A "distinctive name" is a trade name, arbitrary, or fancy name which clearly distinguishes a food product, mixture, or compound from any other food product, mixture, or compound. A distinctive name shall not be one representing any single constituent of a mixture or compound. A distinctive name shall not misrepresent any property or quality of a mixture or compound. A distinctive name shall give no false indication of origin, character, or place of manufacture, nor lead the purchaser to suppose that it is any other food or drug product. The term "blend" applies to a mixture of like substances, not excluding harmless coloring or flavoring ingredients used for the purpose of coloring and flavoring only.

Regulation 23. Packages which are correctly branded as to character of contents, place of manufacture, name of manufacturer, or otherwise, may be adulterated and hence not entitled to enter into interstate commerce.

Regulation 24. A compound shall be deemed misbranded if the label be incomplete as to the names of the required ingredients. A simple product does not require any further statement than the name or distinctive name thereof, except as provided in Regulations 19 and 28.

So many evasions of the National law have been attempted and sometimes successfully carried out, that one, unless he be guarded, is liable to fall into the belief of the decadence of truthfulness, and in this regard I wish to quote from an article, which recently appeared in the American Pure Food Journal, as follows,—Clara Bloodgood, the noted actress, starring in a play entitled "Truth" committed suicide in Philadelphia, impelled, so the papers say, by lack of appreciation of her show. In her own opinion, lately expressed, "Truth" was superior in dramatic incidences and possibilities to any production in which she had appeared in late years.

However, "Truth" is an ominous title for a play which expects to draw patronage from the public. The actress appearing in the title role should fortify herself against disappointment. Perhaps some day "Truth" will be esteemed as in Ben Franklin's day. Now its negotiable value is a small asset in business. Time was when a devotee of science would spend days and months and years to enable him to announce strictly accurate results. To-day truth is subordinated to the sensational statement. Can we imagine Newton or Dalton or Davy or Faraday inventing garnishments to embellish what would otherwise be a very dull statement? Would Hypatia, Lavoisier, and others who died in defense of the truth, or their conception of it, fit their statement of facts to conform to the prejudices and passions of the public?

Honesty, which is but truth in action, is also on the decadence. Dishonesty or kinetic falsehood is punishable by penal code. Day by day are new laws broadened to include this class of offenses—such, for example, as laws to punish fraud in the sale of adulterated food stuffs. But against falsehood, unbacked by a money consideration, there is no law, there is no limitation. For truth there is no reward. The successful playwright and actor pins his faith in "Mrs. Warren's Profession," "Follies of 1907," and similar plays—and the public applauds.

To make this more plain I will quote from a Sanitary Bulletin of New Hampshire, where the question is asked, "What is a Sausage?" Judge Wiest of Michigan says that it is not necessary to consult a dictionary to know what a sausage is. A case was brought into the Michigan courts by the state food and dairy commissioner against Armour & Company, for adding cereal and water to their sausages. After a long fight the decision was against Armour and Company, in the following language:

With the general public of this generation largely reared on farms and in small villages and remembering home-made sausage, there is no occasion to look at a dictionary to define sausage. The common definition is that it is composed of chopped meat seasoned, and the definition must prevail as against a manufacturer's process of adding cereals and water.

This is not the end of the case, however, as it has been carried to the court of final resort.

In the American Pure Food Journal appears the following comment: Under the title of, The Mystery of Sausage. Under the above title the Washington Post makes merry with the sausage, taking as its text the recent injunction secured in Michigan against the food commission of that state in publishing as adulterated sausages containing corn-starch as one of the ingredients.

(To be continued in our May issue.)

HOW TO SOLVE THE PROBLEM OF PURE MILK FOR OUR CITIES.

BY J. A. WESENER, PH. C., M. D.

There are few problems to which more attention has been given within recent years than the question of pure milk. The conditions surrounding the supply of pure milk to the public, both in relation to the producer and the agent that handles it, have brought about the enactment of laws to regulate and control its production and sale.

Milk entering Chicago to-day is a far different product than it was ten or fifteen years ago. In the olden times when milk was sold from an eight or ten gallon can, by pint or quart measure, there was big profit in the business. The milk vender always had enough milk no matter how many new customers he might secure in a day, as long as water was handy.

The word "milk" meant a fluid that had the ap-



PROF. J. A. WESENER.

pearance of milk and it did not matter whether it contained 4 per cent or 1 per cent butter fat, or in some cases was only skim milk. The farmer had to get his extra profit by adding a little water and the milkman, not to be outdone, had to add a little more.

But all of this has been changed since the ordinances define what milk should be. The Chicago ordinance says milk should not contain more than 88 per cent of water, and not less than 3 per cent of butter fat. The progressive milk dealers and the more wide awake farmers have given these new regulations hearty co-operation.

The best milk which now enters the city is bottled in the country; but unfortunately only a small percentage of such milk reaches the consumer. The figures which I have collected show that not more than 24 per cent of the milk delivered in Chicago is bottled in the country. Country bottled milk is produced under better sanitary conditions than is can milk. The dairies from which such milk is drawn are kept under better control and more attention is given to proper methods of handling the product. These farmers have finally been taught to realize that

in order to get the very best results out of a cow she must at least be given the same care and attention that every farmer gives to his horse. She must be properly fed and watered, housed in well lighted and ventilated stables, and be groomed and protected from inclement weather. It does seem rather strange that a farmer will give his horse the best of care, will feed him the cleanest oats and hay, being very particular that the hay should contain the minimum amount of dust. He curries him and always protects him from outside dangers. The cow on the other hand is treated as a sort of scavenger and is looked upon as a self-supporter. Any kind of a tumble-down shed or any sort of a starvation diet will do for her.

Most of the milk that arrives in the city to-day is bought under contract and the following are some of the more important stipulations:

That the farmer agrees to sell and deliver, daily, each morning, to the dairyman good, sweet, pure, merchantable milk.

That the milking shall be done in the most cleanly manner; that the milk shall be carefully strained, immediately after being drawn from the cow; the cans in which the milk is obtained shall be put into a vat of cold water and stirred frequently until the animal heat is expelled, and the temperature of the milk is reduced to 58 degrees, inside of 40 minutes; the water in the vat shall be removed daily, in sufficient quantities to prevent fouling or bad smell; that in the winter weather said vat shall be protected against freezing, and great care shall be taken to prevent the milk from freezing, during and after cooling, and shall not exceed 60 degrees of temperature when delivered at the factory; that the milk shall be transported to the factory on suitable spring wagons and that the cans shall be covered with clean canvas covers.

That the room in which the milk is kept and cooled shall be used for no other purpose, that it shall be properly ventilated, and be separate and apart from the stable in which cows, horses, or any other animals are kept, that the entrance to said room shall not be through a partition, or door opening directly from the stable, but from without, to exercise the utmost care to keep the cans free from impurities; that the cans shall be carefully examined and thoroughly rinsed with clean water before any milk is placed therein, that the night's and morning's milk shall not be mixed, except the remnants of each milking, which may be placed in a can and designated as "mixed milk," and not leave cans stand in barn while milking.

To deliver all milk, including strippings, at the first delivery at the factory after it has been drawn from the cows, and not to hold over any portion or part thereof, and deliver, or attempt to deliver, the same, at any subsequent time; that no milk shall be delivered or offered for delivery, taken from a cow that has "calved" within ten (10) days, or from a cow that will come in or "calve" within sixty (60) days or from cows in an unhealthy condition.

The farmer agrees that if the dairyman, his inspectors or representatives, shall have reason to suspect, from any cause, that any part of the cream has been removed, or that the milk has not been cooled as provided, or that water has been added, or that it has been injured by carelessness or contamination, or if he finds the cans unclean, he shall have the right to refuse such milk, or any further quantity of milk from such dairy.

The inspectors or representatives of the dairyman

shall, at all times, have access to and the right to examine the place for keeping the cows and milking them, and the place for cooling the milk and keeping the pails and strainers, and see that the barns and stables for keeping the cows shall be well lighted and ventilated.

The dairyman agrees to clean at the factory the inside of all cans in which milk is brought, and the farmer agrees to keep his cans clean on the outside, and shall scald in boiling water, night and morning, the pails and strainers used in his dairy.

Such milk is either clarified or filtered and then put in sterilized bottles, capped and iced. It is then placed in refrigerated cars and shipped to the city. From the time it leaves the farmer until it reaches the consumer, it is from 24 to 48 hours old.

The bulk of the milk consumed in Chicago is shipped in cans and without refrigeration. Most of this can product is sold to dealers who bottle it in the city. Such milk cannot compare in quality with the country bottled product.

Certified milk produced under the most careful sanitary and hygienic control is, at the present time, the most satisfactory product. A farm conducted on such a plan is similar to the present surgical operating room, cleanliness and sterilization being the watchword. The cows are given the best of food and by "food" I mean proper food; the stables are built of good material, well lighted and ventilated; the floors are usually of cement with good drainage, running water flowing into these drains to carry off the excreta. The cows are well cared for; of each a record is kept as to her state of health, when she calved, results of last tuberculin test, the nature and amount of rations fed, the amount and quality of milk which she gives and a host of other important facts too numerous to mention. The milkers and handlers of the milk practice asepsis regarding their own person. They are usually dressed in white duck suits. Before milking is begun a man precedes the milker and cleans the thighs, udder and teats. Then the milker proceeds with his duty and keeps the first part of the milking separated from the last part. The latter part of the milk is what goes to the consumer. The other goes into butter or is used for other purposes than that of drinking. A dairy conducted in this manner certainly is ideal dairying. Unfortunately we have only a few such farms in this country and those that we have are run by specialists.

Certified milk sells from twelve to sixteen cents a quart, and this is cheap when you consider the cost of production and the quality of the article that is furnished. Most of such milk is consumed by infants, invalids and the sick. Not much of it is used by the regular consumer, as the price makes it prohibitory.

From what has just been said about ideal dairying, it would seem that such a method could be carried out with the better class of farmers. Certified milk will never solve the problem of pure milk for our cities, as the cost of production makes the price prohibitive. It may seem that this last statement can be refuted by saying: let us educate the farmer; let us teach him that there is good money in producing good milk and loss in producing poor milk; let us pay him a premium over the contract price on all milk running over the stipulated percentage of fat; let us inspect and give advice as to his herd; let us show him how to feed his cows with proper balanced rations and show him

the economy of feeding different feed stuffs and protect him against feed sold simply by the use of printers' ink; let us teach him that in order to make dairying profitable he must know how much milk each cow is giving.

The experiment stations of the United States have devoted volumes and volumes to this subject, and one naturally would think that such efforts would bring the desired results. This, however, has not been the case, and it is only necessary to call attention to Farmers' Bulletin No. 151 to verify the statement.

Careful judges estimate that fully one-third of the cows in the country fail to produce sufficient milk to pay the cost of their keep, and that fully 75 per cent of the profit in the dairy business comes from not more than 25 per cent of the cows. At the Georgia Experiment Station the best cow gave milk which produced butter worth \$115.44, whereas the poorest cow gave milk, the butter of which was worth \$41.63. At the Michigan Station the profit on the different cows varied from \$6.08 to \$94.05. At the New Jersey Station the profit on different cows varied from 15 cents to \$49.72. The milk for the figures given was valued at \$1.00 per 100 pounds.

Denmark is pre-eminently a dairy country and the cattle interests are all centered on the production of milk. The cattle are all bred with a view of producing good milk cows, and they have learned how to keep the greatest number of high grade dairy cows on a given area of ground. At the present time the average Danish farm maintains about one cow for every two and one-third acres of ground. Attention is paid to proper feeding, the amount of feed consumed, and the amount of milk and butter produced. The Royal Danish Society has established a control society all over the country. The farmers form a co-operative society for the purpose of having an inspector appointed from the Royal Danish Society. Before the appointment is made there must be 1,000 cows represented by the local membership. The local members are assessed from 26 to 53 cents per cow. This goes to cover the expenses of the inspector. The inspector visits a farm about every eighteen days and keeps a set of books for each cow. Records are kept of the amount of feed consumed and the amount of milk and butter produced. He advises as to weeding out of cows not profitable, as to breeding and, in short, really makes it a practical dairy school, all of which goes to show that dairying is an industry that requires just the same care and good business management that is demanded of all successfully conducted mercantile pursuits. Our farmers will not reach the standard set by the Danish farmers for a long time to come; the reason being that in this country dairying is not carried on with the idea of a specialty, but simply as one branch of a great variety.

Few creameries or butter factories in Denmark are without pasteurizers. Nearly all of the milk there is thoroughly cleaned and pasteurized before going to the consumer, and it must be remembered that this is done to doubly insure the production of pure milk and in spite of the fact that dairying as carried on in that country is certainly of the highest type.

As an example of practical results obtained from such a method of purification and pasteurization, it is only necessary to call attention to the standard of excellence of Danish butter. It is not better than the best American butter, but it is always good; while

even New York State, the home of good butter, sends some good butter to the market, other that is only fair, and some that is really bad.

In this country we have not given enough of attention and study to the cleaning and pasteurization of milk. The contract between the dealer and the farmer calls for merchantable milk, and by that is meant that it must pass the city ordinances. If it contains the proper amount of solids and correct percentage of fat and nothing has been taken away or added to it, it is merchantable milk. It may be very high in bacteria, up into the millions per cubic centimeter, and such bacteria may be of the pathogenic species such as the tubercle bacillus and others. Nevertheless, such milk would pass the usual laboratory test unless special search and study was made for the bacteriological findings.

To emphasize this statement, I will refer to Bulletin No. 1, published in 1900 entitled: "Tuberculosis and the Tuberculin Test," by the State Board of Live Stock Commissioners of Illinois, page 12, calling attention to the prevalence of tuberculosis in cattle:

"The greatest number in any one county was in McHenry county, one of the largest dairy counties in the state, where 24.67 per cent were found to be diseased. La Salle county follows with 272 cattle tested and 21.32 per cent diseased; King county with 268 animals tested and 15.29 per cent diseased; Sangamon county comes next with 643 animals tested and 8.39 per cent diseased. Peoria follows with 285 animals tested and 2.4 per cent diseased. There are other counties in this table showing a higher percentage for disease, but it must be taken into consideration that in these counties there are only a few small herds which were tested and hence the percentage is not a fair indication of the prevalence in that vicinity of tuberculosis. It is clearly indicated by a study of these tables that the highest percentage of tuberculosis exists in those counties having the largest and most numerous dairies and that close association of large numbers of cows in dairies contribute to the spread of disease."

It must necessarily be seen from what has just been quoted that the cleaning and pasteurization of milk is the only effective method by which the public can be absolutely protected.

Using Nathan Strauss' (New York's eminent philanthropist) own words: "When the public understands, as I do from fourteen years' study of the milk problem, that in the raw state the milk they buy and drink is laden with germs of disease, they will insist that the harmful bacteria be killed by pasteurization, as I am convinced that the only safeguard against impure milk is pasteurization, unless all cows could be regularly and scientifically examined." Pasteurization, as carried on in this country, has not met with the same success as in Denmark, the reason not being quite clear. With the possible exception of one or two pasteurizers, all are more or less defective. If thorough pasteurization is brought about, the milk is either cooked, scorched, or has a bad flavor. If this is avoided the milk then is not sufficiently pasteurized. In Denmark they use a temperature as high as 185° F. which is sufficient to destroy most bacteria. The milk is treated at this temperature for only a few seconds, in this way avoiding cooking the product.

For the production of pure milk the community can not look to the farmer alone. This would especially apply to those farmers that are now practicing sci-

entific dairying, and as already shown, that even where scientific dairying is practiced, absolute purity of the product can not be assured. Milk produced on sanitary farms and sold as the certified product produces pure milk, but even this is often very high in bacteria and may contain pathogenic bacteria. It does not make any difference what extreme measures are used in protecting the product on farms on which certified milk is produced. The farmer is anxious to have the animal produce the maximum quantity of milk so that she will pay her board and keep. Such a constant drain will necessarily lower the vitality of such an animal and make it more prone to disease.

Then again it must be remembered that such ideal methods naturally add to the cost of the product. Certified milk selling from 12 to 16 cents a quart certainly is a luxury even for the well-to-do, let alone that it would be utterly impossible for the poor to buy such a product. Therefore, in discussing this subject I wish to treat it from the poor man's standpoint, and see if we can not devise some method by which pure milk can be produced at a cost which will be within the reach of the poor. The good which would result from feeding good milk to the poor would far outweigh the evil results which would come from feeding bad milk to the rich.

I have already shown that country bottled milk is produced under very good control. It is true that such milk is not up to the standard of the certified product, but nevertheless it is good milk. Some of the larger milk companies keep thorough control over their farmers. They have expert milkmen and veterinarians that are constantly visiting the different dairies that produce milk for them. In this way they keep a careful control over the entire production, and this plan is very similar in nearly all respects to the plan which is in universal use in Denmark. The veterinarian in making his visits to the farm looks carefully into the condition of the cow, her health, kind and amount of feedstuff given her; he examines carefully into the condition of the stable, the milk house, and the purity of the water supply. He also gives advice to the farmer as to weeding out cows that are unprofitable and advice as to breeding in new stock, all of which instruction is for the benefit of the farmer and teaches him how not only to produce pure milk, but how to make such milk economically, thereby making dairying profitable to him.

It is true that there are only a few companies that can carry on such ideal dairying. It requires a great deal of capital, and a good organization to be able to operate a plan of this kind. The milk company that produces milk in this sanitary way will naturally secure the business in its territory, and no doubt eventually will be called a trust. Of late we have heard a good deal about the milk trusts. Personally I am not aware of any milk trusts, but believe that if a milk trust can furnish pure and wholesome milk to the people at large at a fair price, it is doing more good for the sake of humanity than any other philanthropy I know of.

(To be continued in our May issue.)

Reverend Robert J. Burdette was seriously poisoned in Los Angeles by eating contaminated meat. It was claimed that a chemical analysis of the contents of the stomach showed that the meat was treated with formaldehyde. The other theory is that it was ptomaine poisoning.

COMMENTS ON MISSOURI BULLETINS.

St. Louis, March 20, 1908.

In enforcing pure food laws one might expect that the first articles of food to be dealt with would be those that either form a principle portion of man's daily diet, those that are apt to be the most unwholesome, or those wherein the consumer is most liable to be defrauded.

As has been the case in almost every other state, the very first article of food to engage Food Commissioner R. M. Washburn's attention was vinegar, and his first bulletin is devoted to this article.

Vinegar, being used in foods in small quantities, not unlike spices, and being a cheap product, it is neither an important article of food nor one wherein the consumer can be greatly defrauded.

As to the wholesomeness of the product, one can go through food chemists' reports, back to the year one, and never find a single case where vinegar was found to contain injurious or unwholesome ingredients.

Yet there are few food products about which there is so much misapprehension in the minds of the people and this misapprehension has undoubtedly been caused by laws which are a commentary on the manner in which legislation is procured in the interests of a class.

Vinegar was the subject of legislation long before the modern craze for reform became epidemic. Nearly all of the states, including Missouri, had vinegar laws, but which, like Sunday lid laws, were never enforced. These laws as well as those enacted nowadays all begin something like this: Vinegar shall be deemed to be adulterated if it contain any proportion of lead, copper, sulphuric acid, or other ingredients injurious to health, or any foreign coloring matter, etc.

When it is considered that none of these substances, with the single exception of an insignificant amount of burnt sugar color, ever existed in vinegar, someone might ask, Why does this clause always appear?

A prominent vinegar manufacturer in Chicago recently sought to explain it in a letter to Mr. Washburn, thus:

"The gentlemen interested in apples wish to warn the people through the public statutes that if they do not buy vinegar made from apples, they are liable to be poisoned by some proportion of lead, copper, or sulphuric acid."

But to get back to Mr. Washburn's bulletin, he could not perhaps be accused of treating the subject unfairly, but nevertheless it savors strongly of a final attempt to favor the orchardist.

He first tells what vinegar is, having found out considerable since the day last August when the newspapers quoted him as saying that 80 per cent of the vinegar of Missouri was manufactured from various distilled products and that wood alcohol and denatured alcohol were largely used, but that these products are not in his opinion poisonous." These products, it was said, were sold as distilled vinegar. It is distilled vinegar that is the purest and cleanest and incidentally the cheapest of all the different varieties and which was always the one formidable competitor of the apple product.

As provided for by the Missouri law, the vinegar standards are those of the United States Department of Agriculture, and the following different kinds are recognized: Cider or apple, wine or grape, malt, sugar, glucose, or grape sugar, and spirit, distilled, or grain vinegar.

After this, appears the statement, that vinegar without any qualifying word, means cider vinegar (see law).

Next the process of manufacturing cider vinegar is dealt with and he begins by saying that cider vinegar is the principal vinegar of commerce. The fact is—and no one is better aware of it than Mr. Washburn—that cider vinegar is less than 25 per cent of the total. He himself says in his bulletin that "more than half of the vinegar having the color of and selling for apple vinegar in the state last fall, was distilled vinegar with artificial color.

It is stated that the flavor of apple vinegar is partly due to minute particles of apple pulp, and to call these impurities is incorrect. Every one will agree with him. No one ever called these particles of apple pulp impurities, but last summer it was pointed out to Mr. Washburn that nearly all of the apple vinegar of modern times is produced from cores, parings, wormy, rotten apples and other orchard refuse that could not possibly be used for any other purpose. It was the worms and rotten apples that some persons called impurities, and what would undoubtedly be so regarded in the popular mind but Mr. Washburn in his pure food treatise remains perfectly silent on this point.

Before going further it is interesting to refer to an address delivered before the State Board of Horticulture last December, entitled "The State Pure Food Law in Its Relation to the Farmer."

In discussing the effect of the law when the farmer buys food he stated, "The price of foods has increased materially since the national food law went into effect, but the claim that the price has increased because of the law is poorly founded. In discussing the effect of the law when the farmer is selling, he stated, "The removal from the market of bogus jellies and jams will undoubtedly increase the demand and also the price of such fruits as strawberries, raspberries, blackberries, etc. The market for pure apple vinegar of standard strength should be increased materially." He then told how much of the vinegar of Missouri was of the distilled variety, which could be manufactured for such a small sum that when colored it could be sold in place of cider vinegar and therefore formed an unfair competition. Being himself a farmer, he assured the farming interests of his sympathy and announced his ruling of declaring all colored distilled vinegar illegal after January 1, 1908, which might tend to raise the price of apple vinegar.

There can be no doubt but that in many instances colored vinegar was sold under a misapprehension, and it is the business of a food commissioner to eliminate fraudulent branding.

While driving a product out of the market is a sure way, it is not a desirable way to accomplish this end.

What people really demand is anything that is pure and has the long-familiar brown color.

In order to supply this demand, the manufacturers are now using grape sugar and importing sugar house wastes. Both of these products yield a naturally colored vinegar, which, of course, is legal, and therefore the "Gentlemen who have the apples" will not fare as well as it was erroneously imagined.

For many years there has been little inducement to make vinegar from apples and this condition is bound to exist even more so in the future.

Bulletin No. 2 is given over to the fraudulent sale of oleomargarine. In putting his foot into the butter

tub Mr. Washburn evidently does not expect as much of a stir as was the case when he poked his head into the vinegar barrel last summer, for the subject is treated in a manner well calculated to keep up the popular prejudice against that wholesome, low priced food product, oleomargarine. Like vinegar, oleomargarine has been subject to much legislation for many years, and was always discriminated against for the benefit of the dairying interests.

This bulletin is primarily intended to call attention to the fraudulent sale of oleomargarine in St. Louis; thus it states:

"For many years there have been laws in this state forbidding the sale of oleomargarine as butter, but these laws have been grossly violated. Frequent and persistent attempts have been made to control this traffic, but so far with but little avail. Now the pure food law comes in and reiterates: A food is misbranded if it is an imitation of, or is offered for sale under the distinctive name for another article. A food is adulterated if it is colored or stained whereby damage or inferiority is concealed.

The residence district of St. Louis is now being imposed on by fake butter peddlers. The butter sold by these peddlers in practically all cases is not only not butter, but also colored to deceive. The color used in practically all cases is a coal tar color which has been forbidden in butter as not in accordance with the pure food law."

It will be noticed that not one word is said that butter is also colored, nor is it explained how coloring oleomargarine any more conceals damage or inferiority than when butter is colored. The fact is, that whenever a food commission endeavors to defend the coloring of butter and at the same time condemn the coloring of oleomargarine, we have a curious mixture of sense and nonsense.

Household tests to distinguish between the two articles are then described and it is strongly urged that these tests be always made. Then comes a final effort to maintain prejudice.

"Peddlers of this fake butter usually go about in rather poor wagons upon which there is no name establishing responsibility. If the consumer could see the filthy, utterly horrid conditions under which most of this "moonshine" oleomargarine is handled she would never buy another pound. Dark, filthy, basements, hay lofts, horse stalls and the like are the places where these illegitimate food vendors choose in which to work over the white oleomargarine." This of course is all very true and is no news. The housekeeper who buys from the vendors just depicted ought to know by this time what to expect, but I do have sympathy for her husband or her boarders.

It would have been well in this bulletin to have gone a step further and explained that all these horrible crimes are committed because of the federal government having placed a high and unfair tax on colored oleomargarine and by otherwise restricting its sale in order that the dairying interests might be protected, has made this "moonshining" highly profitable.

The placing of a high tax on colored oleomargarine was one of the most outrageous pieces of class legislation that ever went through Congress. And just as Congress favored the dairy industries, so all the states have oleomargarine laws to accomplish the same end. Some states have even prohibited its use in the penal institutions. Dealers keeping it for sale are required

to post large signs reading "Oleomargarine sold here." Hotels, restaurants, boarding houses and saloons are required to display similar placards reading, "Oleomargarine served here." All this, of course, conveys the impression that the substance is inferior, detrimental or unwholesome.

It does seem to me that all that is required is to properly label an article, and this is enough to protect the consumer. If it is wrong to color one article of food, it is wrong to color all articles of food, butter not excepted.

If food commissioners desire to point out to the consumer the frauds that are perpetrated, which of course is commendable, they should also point out the economy and advantage in using some of the newer food products, and oleomargarine has not a few superiorities over butter. In any event it is unfair to the masses to use a food law to further the interests of one class or industry at the expense of another.

GEO. LANG, JR., Food Expert.

CAN DR. WILEY POSSIBLY BE AS SMALL AS THIS

If Dr. H. W. Wiley, the Government Chemist, is correctly quoted in his address before the Mothers' Congress in Washington last week, he is revealing himself as an extremely small and malicious man. It will be remembered that the Corn Products Refining Company, manufacturers of glucose, defeated him in the recent controversy over the naming of glucose "Corn Syrup." The Mothers' Congress speech occurred shortly afterward, and in the course of it Dr. Wiley is quoted as follows:

"I have spoken of maple syrup as an important food product. Other table syrups should also be carefully scrutinized in regard to their purity. We have in this country abundant supplies of syrup-making materials to provide for all the table syrups needed. The maple grove, the sorghum field and the cane field are ready to furnish all the table syrups that we need. There is no necessity any longer, if there ever has been, of using glucose as a basis of a table syrup.

"By itself it is not palatable nor is it eaten as a syrup. When used it is very highly flavored with the lowest grade products which are entitled to the name of either syrup or molasses. For instance, the final residue of a liquid character from the sugar refinery is the most common substance used to flavor glucose when offered for consumption upon the table. Not only is it used for the flavoring but its presence is usually designated by the statement that the syrup has a cane flavor. The table syrups of this country would be vastly improved if glucose were entirely eliminated from their composition, and if there was substituted for this mixed mass the pure products of the maple grove, the sorghum field and the cane field."

However inspired, this is a mean attack upon glucose, a product which all honest and fair scientists agree is perfectly wholesome and nutritious. Whether the inspiration for the slur lay in Dr. Wiley's defeat by the chief glucose manufacturer of the country, the "Grocery World" leaves open to conjecture.

THE GROCERY WORLD,
March 23rd, 1908.

Michigan has secured a conviction in the sale of "Blended Maple Syrup." The case will be carried to the Supreme Court.

COMMUNICATION.

My Dear Colleague:

The 12th day after the third catastrophe commemorates a great occasion—the twenty-eleventh anniversary of Dr. Sensation in Public Office. For a time out of mind he has been indefatigably at work teaching the farmer how to apply chemistry to the farm. He or "Atwater" made renowned investigations concerning the presence of nitrates in the soil and on the fixation by plants of nitrogen from the atmosphere. He or "Atwater" again, by numerous digestion and calorimeter experiments, constructed Standard American Dietaries. With an inexhaustible revenue to draw upon, he or Jenkins made thorough and complete examinations of American Feeding Stuffs, so that the stock growers could feed intelligently. He or Jordan or Woods determined the digestive co-efficients of cattle foods that the farmer might scientifically combine foods to produce the best results. He or Hilgard developed the principles of fertilizing, and formulated methods for soil analysis. He or Wheeler or Hopkins extended the science of the application of different fertilizers to different soils for different crops. He or Babcock invented a test by which milk might be cheaply and conveniently valued and placed dairying in this country on a business basis. He or some other "man" discovered a method for accurately testing the churnability of cream and removed the creameries from the thralldom of the rule of thumb. It will thus be noticed that in all departments of chemistry applied to scientific agriculture, this remarkable chemical Genius or some one else has revolutionized obsolete methods.

In other fields he has been equally active. Bulletin after Bulletin from his laboratory shows that sugar can be successfully made from artichokes and one factory produced several gallons of sirup at a cost of only a trifle more than \$1,000.00 per gallon.

In comparison to the work of this Department manipulated so long by this great man the individual work of Liebig, Berthollet, Soxlet and Gilbert in other countries sink into significance. It would be manifestly unfair to enumerate what Dr. Sensation has done without mentioning what he intends to do. To be brief, he will investigate everything, and as he belongs to the 1,000-year club, still stands a fair chance of finishing something.

Inasmuch as the principal chemical societies have lately given him a vote of non-confidence, and as the road to notoriety has been somewhat rough of late, inflicted several severe jolts to his sensitive nature, it was suggested by several of us (who never have and never expect to contaminate our hands and corrupt our minds with filthy lucre received from the government, and who also would scorn to act a sycophantic part), that we club together and at a cost of a few "simoleans," wine and dine ourselves, yourself and himself, in commemoration of this anniversary, thus creating another opportunity for our disfigured idol to air his chemical accomplishment of making a rattling good after-dinner speech. Of course the chemists of shady concerns will be there—they need favors. The chemists of reputable concerns may be there—they fear persecution. Government employees will hold a family reunion.

Kindly hide all evidences of servitude and hie to the banquet in honor of the job distributor.

The Committee.

ADVICE FROM A KANSAS FOOD INSPECTOR.

L. G. Smith, a food inspector in Kansas City, issued a circular letter for the benefit of milk consumers, which is worthy of wider circulation. It says:

First. See that the milk when it stands a while is clear of sediment in the bottom of the vessel. If there is a sediment, then the milk is not fit for use. It has been carelessly handled and certainly is not healthy.

Second. See that you do not get a lot of dirty worn out tickets. For if you should get tickets that were taken out of a house where there was smallpox, scarlet fever, diphtheria, typhoid fever or any other contagious diseases you are likely to contract the same. You can avoid this by having the milkman furnish you with perforated tickets, printed pints and quarts, that you can tear or take off and drop in the vessel and set it out for the milkman. In this way you are protected from the different diseases.

Third. See that the milk has a reasonable amount of cream on it; you can tell when the milk has been skimmed. If the milkman does not furnish you clean milk, then tell him you are going to look for another. There are plenty of them that furnish good clean milk.

Fourth. Ask him if the cows have been examined for tuberculosis or other diseases. If they have not then you are taking great chances. We do not say that all cows are affected with tuberculosis, but we do know that some cows have, at least that is what the best bacteriologists tell us. Why should you chance it? We have quite a number of dairies in our city that have been examined and some cows are infected. They were sent to the tank. We know these cows that we examined are healthy.

[Fifth. Tell your milkman that you are anxious to pay a better price for better milk and better service. Don't expect him to sacrifice his cows and make heavy outlays in cash and labor as a charity. He has a family to support and works hard for a poor living at best. —Ed.]

TO CHECK LIQUOR SHIPMENTS

Washington, April 3.—The Senate committee on judiciary to-day decided to report a bill at an early day intended to afford the states better support in their attempts to enforce local option laws. The committee has decided that all the bills offered, having in view the object of giving the states control of liquor in interstate commerce after it passes within the borders of the state to which it is consigned, will be open to constitutional objections.

Senator Knox, chairman of the sub-committee which has had the matter in charge, is of the opinion that the police power of the state under which the sale and disposition of liquors is regulated can neither be enlarged nor diminished by federal laws. Other members of the committee have coincided with this view.

The committee proposes, therefore, to report a bill to abolish shipments "C. O. D." of liquors and to require that all charges be prepaid; also to require that the name of the consignee in every case be definite, and, further, that every package of liquor entered in interstate commerce shall be marked plainly as such to make identification more certain.

Most of the complaints heard by the advocates of more stringent legislation are met, it is believed, by the legislation proposed. The violations, as a rule, were made possible, it appeared, by fictitious consignees and the "C. O. D." packages.—*New York Commercial*.

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KENTUCKY PURE FOOD AND DRUGS LAW.

The new Kentucky food law published in full in our last issue is an improvement on the old law which, while it furnished an excuse for considerable activity in locating adulterated food, was of little value except as a means of illustrating how much the state really needed a good food law. Like many other state food laws, special industries get special protection, but on the whole it is a meritorious law. It is, perhaps, a mistake to incorporate a pure drug law with a pure food law, or at least to put the enforcement of two laws so different in character in one man's hands. A Director of an agricultural college in these latter days is expected to be a good advertising agent, a first-class politician and know at least the rudiments of scientific agriculture. He is trained to gather under his wing everything not nailed down, and thus we find him running farmers' institutes, backing stock and dairy shows, editing papers, helping himself to a slice of the National Geological Survey, Water Survey, United States Agricultural Department Special Investigations, and now his duties are to be increased by seed inspection, dairy and food inspection, and even drug inspection and analysis. All most of these men know about drugs, wouldn't be a drug on the market; however, they are not expected to write treatises on pharmacology.

The Kentucky law placing the enforcement of drug regulations in the care of the Director of the Experiment Station is causing much adverse comment. It is not contended that the present incumbent of the office is not peculiarly fitted to administer the law with wisdom, discretion and justice, but it is argued that there is no certainty that his successor will inherit all his attainments, and even an Experiment Station Director does not have a perpetual lease on his office.

DR. WILEY VINDICTIVE

Dr. Wiley's official organ, owned and controlled by the manufacturers of bottled and bond whiskies, in its April number commences a tirade of abuse against the majority signers of Food Inspection Decision, No. 86, which decision does not bear Dr. Wiley's signature. It also bewails a proposed increase in the salary of the Solicitor of the Department of Agriculture. It did not take this position when Dr. Wiley's salary was increased. *"It seems to make quite a difference whose ox is gored."*

PRESIDENT HARPER RESIGNS.

President Robert N. Harper, who was recently convicted in the police court of violating the National Food and Drugs Act, has tendered his resignation as president of the American National Bank. The particular offense of which Dr. Harper was convicted was manufacturing for sale in the District of Columbia a "headache powder," on the label of which it was stated that the preparation was not injurious to health, while the authorities contended that the constituents were injurious to health. Mr. Harper feels that he has been ill treated in the vindictive spirit manifested, inasmuch as the case was brought by agreement to test the scope of the somewhat general wording of the law. The case has been appealed to a higher court.

In resigning the presidency of the bank, Mr. Harper said:

"While I am innocent of the charges brought against me of violating the pure food and drugs law, and confidently look forward to a complete vindication, yet, owing to the fact that such charges are pending and to the notoriety which has recently been given to the prosecution against me, as well as to the subsequent unprecedented action of the chief executive of the United States, and believing that this notoriety might possibly tend to injure the interests of the American National Bank, I have reached the conclusion that it will be for the best interests of the bank that I resign my position as its president.

"I feel assured that all my friends will appreciate my motive for resigning.

"Heartily thanking the members of the board and the officers of the bank for their loyal and earnest cooperation in building up the American National Bank to the magnificent position of strength which it now occupies among the institutions of Washington, I now tender my resignation."

In accepting the resignation the board adopted the following minute:

"The board of directors of the American National Bank in accepting Mr. Harper's resignation as their president unanimously regret that Mr. Harper, through his devotion to the interests of the institution, should feel called upon to resign his position as president, and further express themselves as fully convinced of his innocence of the charges under which he is now arraigned, and their supreme confidence in his early and complete vindication of any intent to violate the law."

Mr. Harper, convicted under the National Food and Drugs Act, was denied a new trial and sentenced to pay a fine of \$750.

"A TRIPLE ALLIANCE IN OPTICS."

A little brochure under this title tells of the association of the Bausch & Lomb Optical Co., of Rochester, N. Y. Carl Zeiss of Jena and George N. Saegmuller, under the firm name of "Bausch & Lomb Optical Co." This uniting of three of the largest and most progressive firms in the business of producing high grade lenses for all purposes cannot but be a benefit to the purchasing public. It will now be possible to obtain goods in some measure combining the excellences of each individual producer. Goods can now be made in this country after the famous Zeiss formulas at cheaper rates, owing both to our better system of working and to elimination of import duties. The life of Mr. Bausch as given in the little booklet reads like a romance, but

it is perhaps very similar to many an intelligent, aspiring man in this great, new and undeveloped country. Carl Zeiss, too, built up a business from a small and unpretentious beginning by the application of scientific principles combined with hard work. It was the genius of Ernst Abbe, however, together with the practical knowledge of Zeiss, that made success and supremacy in the optical field possible.

Mr. Saegmuller made a reputation by making the best surveying instruments and instruments of precision.

Those interested in the growth of the optical industry in this country should read this little book, which no doubt can be had on application to Bausch & Lomb Optical Co., Rochester, N. Y.

FIRST FOOD COMMISSION MEETING.

The commissioners named by the president to pass on pure food questions met in Washington, March 25, and named Professor Ira Remsen chairman. They propose to handle only such questions as are submitted to them by the president or the secretary of agriculture. It is probable that they will be called upon to determine the wholesomeness of sulphur dioxide and nitrous oxide as used in bleaching, benzoate of soda and other chemicals used in preserving food and also as to what constitutes a blend in whisky. No action was taken on any disputed questions at the Washington meeting, nor at a subsequent meeting held in Baltimore. The commission will first familiarize themselves with the law and the rulings made under it.

THE WILEY BANQUET.

The banquet given for Dr. Wiley in New York, April 10th, was said to be a success, over 200 partaking. Many prominent chemists were present and many were conspicuous by their absence. Besides chemists, there were present learned counsel for the various interests affected by the National Food and Drugs Act. Another banquet in honor of Dr. Wiley was given in Washington, D. C., the evening following by members of the Department of Chemistry, and all the speakers on the occasion were very complimentary to the chief of their department. Dr. Wiley spoke feelingly of their fidelity.

PENNSYLVANIA BULLETIN FOR MARCH.

The March number of the Monthly Bulletin of the Dairy and Food Division of the Pennsylvania Department of Agriculture is a pretentious circular of 65 pages. It contains 26 pages of general information, 7 pages of rules and regulations, and 6 pages of inspection and analysis of samples of food, comprising: Butter, 116; lard, 2; milk, 89; vinegar, 2; other foods, 15. Part 1 consists of lists of licenses; part 2 of list of analyses, and part 3 of a tabulated statement of suits and prosecutions terminated by the Dairy and Food Commission.

ABBOTT WINS OLEO. CASE.

Attorney Charles S. Abbott of Elgin, now assistant in United States District Attorney Sims' office, successfully prosecuted a case against Frank Goll, for selling "oleomargarine" without proper brands and stamps. Abbott is no novice in this matter, having been initiated six years ago while state's attorney of Kane county, in trying to obtain a conviction under the Illinois state law for selling colored oleomargarine.

He handled the cases then as he handled the last one, to his credit and to the satisfaction of the prosecution.

NO MARYLAND FOOD BILL THIS YEAR.

The Maryland Food and Drug bill fell between the State Board of Health and the Agricultural College, both of which organizations wanted the enforcement of it. The House supported the Agricultural College and the Senate the State Board of Health. It was the case of an irresistible force coming in contact with an immovable body. Next session the lawmakers had better disregard the lobbyists and create a special department for the enforcement of food laws.

IMPORTANT OLEO. DECISION

The decision of the Internal Revenue Department classifying restaurant keepers who color oleomargarine as manufacturers, and, therefore, amendable to \$500 yearly license fee, will take the last prop from under colored oleomargarine. For four years, the practice of coloring oleomargarine has grown until nearly every cheap restaurant keeper and many hotels buy uncolored butterine and color it in the kitchen. If \$500 is about what this privilege is worth to the government, we predict a large quantity of uncolored oleomargarine or a much poorer butter will be dished out to restaurant patrons in the near future.

RESTAURANT KEEPER GUILTY.

The Illinois Food Commission won a case against an Elgin restaurant keeper accused of substituting oleomargarine for butter. The use of oleomargarine in restaurants of the cheaper class is almost universal in Chicago and in the neighboring towns, and if the new Illinois law is construed to be broad enough to reach this offense, a number of cases should be started at once in order that the restaurant keepers may take notice.

PROPOSED RHODE ISLAND BILL.

A pure food bill has been introduced in Rhode Island. The novel feature of the bill is a provision of a commission of three members for the enforcement of the law. An appropriation of \$3,000 is provided for, \$1,500 of which is to pay for the services of a secretary. It looks as if the author of the bill had omitted the only really vital part—provision for the chemical analyses of samples. Without that a law is simply as sounding brass or a tinkling cymbal.

FOOD LAW AMENDMENTS PASS U. S. SENATE.

Two bills intended to amend the National Food and Drugs Act have passed the United States Senate. One known as "the Hepburn bill" was introduced by the father of the food law, and is intended to prevent fraudulent representations as to the government guarantee of foods and medicines. The other bill amends the act to include the Homeopathic Pharmacopœia. Both are desirable amendments and should pass.

Dr. J. A. Wesener leaves May 2d for London, England, in the interest of two very important patent cases.

We omit the directory of State Food Control Officials to give space to recent important food decisions by Internal Revenue Department.

THE FIRST FOOD AND DRUGS ACT PROSECUTION A FARCE.

The first prosecution under the Food and Drugs Act, that of Robert N. Harper, of Washington, D. C., has turned out to be a farce. There were several specific charges of misbranding in the information filed against him, but he was convicted, according to the statement of one of the jurors, made after the trial, on the ground that the words "brane fude," which were a part of the name of Harper's product, constituted "a false or misleading statement," according to the meaning of the law. The court instructed the jury, at the request of the government, that, unless they found from the evidence that there is a known and distinct kind of food that feeds and nourishes the brain as distinguished from that which feeds and nourishes the entire body, and that the defendant's drug or preparation is a food, and that it feeds and nourishes the brain particularly, as distinguished from a food that nourishes all parts of the body, then the jury are instructed as a matter of law that the words "brain food" and "brane fude"—if you find that "brane fude" means brain food—are false and misleading, and your verdict shall be guilty on the first count of the information.

The juror quoted above correctly said that, under the judge's charge, there was nothing for the jury to do but to bring in a verdict of guilty, even though they might be of the opinion that the name "brane fude" was not calculated to deceive people, and make them think that they were buying a food to nourish the brain and nourish it specifically and exclusively.

This part of the charge of the court, according to our view, is absurd and ridiculous; and it is manifestly inconsistent with the instruction given late in the charge, that:

"The jury are instructed that the purpose of the act of June 30, 1906, was to prevent the public from being deceived or misled in the purchase of drugs, and that the defendant can not be found guilty of misbranding his preparation unless, on the label, bottle or package of his drugs he made any false statements, or *such statements concerning the same as would naturally and reasonably deceive or mislead, or tend to deceive or mislead.*"

Had the court refused to grant the request of the prosecution to make the absurd ruling as to the name "brane fude," if, in fact, the jury had not been instructed to convict, following the instructions just quoted, the defendant would most probably have been acquitted.

It may be, and doubtless is, true that there is no food which feeds and nourishes the brain, that does not, at the same time, feed and nourish the body as a whole; but must one be compelled to specify in detail all the properties, or each and every effect and use of the foods and drugs one makes, and must the fact that he is not so minutely specific, but mentions only a portion of those properties, effects or uses, constitute a criminal offense, and subject the offender to imprisonment and disgrace? If this ruling is upheld, then no man in the drug business can ever feel safe from criminal prosecution. For instance, codliver oil has been held out to be a flesh-producer. Other remedies are called blood-makers, blood-purifiers, etc.; others, again, are claimed to cure headache and other maladies, but, according to this judge, all such statements are false and misleading because they do not directly and specifically produce flesh, make or purify the blood,

cure headache, and so on, and because they have some other effect on the system besides that for which they are specifically recommended. We think it may be said with truth that most remedies act indirectly to accomplish their purpose, and that they have other effects than those it is sought to produce by those who take them; but to a sane mind it is not false or misleading for a manufacturer not to furnish an elaborate treatise with each package of the medicines he makes, setting forth all known information about them, and describing in detail how they act to produce the relief for which they are recommended.

From what we have said, therefore, it can be seen that the Harper case is worthless as a test case, and that no manufacturer or dealer can look to it for guidance or instruction as to the meaning of the Food and Drugs Act. The case was a hard-fought one, extending over three weeks, and the representatives of the Agricultural Department were apparently determined to secure a conviction at all hazards. Their zeal in the case, to our mind, was unbecoming the dignity of the representatives of a great government, and smacked more of a desire to have their own extreme views upheld than to protect the public from deception and harm. They resorted to every little technicality that their ingenuity could devise to confuse the minds of the judge and the jury, even going so far as to urge a conviction on the alleged ground that the defendant had slightly overstated the percentage of alcohol in his preparation. The alcoholic content, according to the label, was 30 per cent, but one of the great government experts swore that samples he had examined showed only 24.5 per cent; though, according to a reluctant admission wrung from him on a severe cross-examination, it was found that one of his tests showed 27.6 per cent; and that he had been testifying as to the spirits contained in the preparation on the basis of absolute alcohol, when he must have known that all manufacturers use common or commercial alcohol, which is only 95 per cent pure. He must have known, also, that, according to rules and regulations, the term alcohol is defined to mean common alcohol, and not alcohol absolutum. Thus, it can be seen that, even taking the figures of this expert as reliable, the variation from the stated amount of commercial alcohol was only about 1 per cent, and when it is remembered that the rules and regulations expressly provide that a statement of the maximum quantity or proportion of the alcohol present in a preparation would meet all requirements, it can be seen how eager the government officials were to convict this man without regard to justice, law, or their own regulations.

As the purpose of that portion of the act which provides for the statement of alcohol, morphine, cocaine, etc., on the labels of drugs containing them, was to give warning to the public of their presence, so that these drugs might not be taken unadvisedly, it would appear to a fair-minded man that Harper had complied strictly with the spirit of the law, for, according to the government's own witnesses, he had overstated, rather than understated, the alcoholic content of his preparation. He could have had no motive in overstating the alcohol, unless it were a desire to be sure that in no case it were understated, which would undoubtedly have violated the law.

Under all these circumstances the tactics of the prosecution suggest that there was some personal or malicious motive behind them. This view is strengthened

by the fact that no formal hearing, such as the law directs and for which the regulations provide, was given to Harper previous to notice of prosecution. It is true that on October 3, last, Harper appeared before the Board of Food and Drug Inspection, but he was not cited to so appear, and did so on his own volition when he learned that the department had sent a notice to a retail druggist calling attention to certain statements on Harper's preparation which the department regarded as "false or misleading." At that hearing Harper asked the board to rule definitely on his labels, packages, etc., and to state specifically to what they objected, expressing his desire to live strictly up to the letter of the law, and to conform to the wishes of the board in the minutest particular. But regardless of his request the board refused to make a ruling, telling Harper that he must be the judge of the law himself, and not come to them for information. However, from his interview, he was enabled to guess at their objections to his labels, and, at considerable expense, he went directly to work to revise them, eliminating therefrom all matter to which he thought the board could possibly object, and printing new labels, circulars, etc., in accordance with these revisions. It would seem that, when a man showed such a desire to comply with their demands, even though some of them were manifestly arbitrary and unjust, the administrative officials would have given to him their aid and encouragement. But such was not the case. Although they must have been aware that he had changed his labels to meet their whimsical ideas, they instituted prosecution against him on the basis of his old labels which had been altogether abandoned and which he had only used prior to the interview recorded above.

Another incident which gives the appearance of at least excessive zeal in the case, was the action of the President in sending for the District Attorney and instructing him to press for a jail sentence for Harper. It would have been entirely proper, had the case been a flagrant one—had, for instance, Harper's preparation contained morphine, cocaine, or some other such insidious drug or drugs, and had he failed to state the fact on his labels—for the chief executive to have signified to the prosecuting officer through the Attorney-General that he should make an example of the offender; but, according to the newspapers, the President did not stop at that; for, following his interview with the District Attorney, a statement was given out at the White House, and published in the papers, where the judge who presided in the case was bound to see it, that the President insisted on a jail sentence for the defendant in the case. The fact that the judge was an appointee of the President, and that his term was about to expire, was commented on in the newspapers and in the halls of Congress as adding to the unseemliness of the President's action in the matter. It is not possible for the President to keep posted on all the details of even important governmental matters, and still less can he be expected to know all the facts in every little case that comes up in the police courts. He must depend for his information on his subordinates, and he must, of necessity, take their conclusions as true, and rely and act upon them. And his action in the Harper case can be reasonably explained on the ground that the zealous employes in the Agricultural Department, beside themselves with delight at their first victory, had misrepresented the facts to the Presi-

dent, and had made him believe that Harper had been guilty of flagrant misrepresentation and fraud.

As stated in the beginning, the man was really convicted because he called his preparation "Brane Fude." Now, it is inconceivable that any person among the millions that have bought the remedy during the twenty years it has been on the market, could have purchased it with the idea that he was getting a food for the brain, or that the brain needed a specific food; and so we do not believe that the President, had he been acquainted with all the facts, would have sought to have inflicted on a fellow being so severe a penalty for such a trifling offense.

Harper will be brought up for sentence about the time this article is put in print, at which time it will be known what, if any, influence the President's request will have upon the judge in the case.

It is needless to say that Harper has appealed the case, and, whatever may be the sentence, that he will not submit to it until it has been approved by the court of last resort.

We regret that this, the first case under the new law, should have terminated in such a fizzle. The Food and Drugs Act is an innovation in American legislation, and all who are affected by it have been anxiously awaiting the determination of the case, hoping to derive instruction and information therefrom. But, as we have said, there was nothing clean-cut about it, and but for the statement of the juror above referred to, no one would have known that the conviction was secured upon a mere quibble, to-wit: That the name "Brane Fude" is calculated to deceive people into buying Harper's preparation with the idea that there is a food which nourishes the brain specifically and exclusively, and that "Cuforhedake Brane Fude" is such a substance.

We would like to see the person so ignorant as to be deceived in that manner. The prosecution could not find him, and we do not believe he exists; but if he does, humanity would dictate his hasty confinement in some institution where they "minister to minds diseased."

GOVERNMENT GUARANTEE OF ADULTERANT.

What has become of the bruited tremendous workings of the national pure food law in enforcing the purity of foods, drugs and liquors? The basic idea was that adulterations would cease by dint of exact labelings. But these labelings are contrived to keep within the letter of the regulations and yet offer a grandiloquence appealing to the purchaser of cheap substitutes. "Guaranteed under the pure food act" is a blazon quite suggesting that the national government rather than the manufacturer or compounder is the guarantor.

This condition is an illustration of the fact that if anything is wrong there is only one way to deal with it, and that is—stop it altogether.—*Chicago American*.

COLORED DISTILLED VINEGAR PROHIBITED.

The new Tennessee food law expressly prohibits colored distilled vinegar in the following words: "Chapter 297, Act 1907, Sec. 3, Article 4." If it (food) be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed, provided that burnt sugar or any other coloring whatever used in the manufacture of vinegar or cider, shall be deemed an adulteration.

OHIO VINEGAR LAW AS AMENDED FEB. 28, '08.

Be it enacted by the General Assembly of the State of Ohio:

Section 1. That sections 1 and 2 of an act entitled, "An Act to prevent the adulteration of Vinegar," passed April 14, 1888, as amended March 30, 1896, be amended so as to read as follows:

CIDER VINEGAR.

Sec. 1. That no person shall manufacture for sale, offer, or expose for sale; sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act. Any vinegar manufactured for sale, offered for sale, exposed for sale, sold or delivered, or in the possession of any person with intent to sell or deliver, under the name of cider vinegar, or apple vinegar, or any compounding of the word "cider" or "apple" as the name or part of the name of any vinegar, shall be the product made by the alcoholic and subsequent acetous fermentations of the juice of apples, shall contain no foreign substance, drugs or acids, is lævo-rotatory, and shall contain not less than four (4) grams of acetic acid, not less than 1.6 grams of apple solids, of which not more than fifty (50) per cent are reducing sugars, and not less than twenty-five hundredths (0.25) grams of apple ash in one hundred cubic centimeters (at a temperature of twenty (20) degrees centigrade; and the water-soluble ash from one hundred (100) cubic centimeters at a temperature of twenty (20) degrees centigrade) of the vinegar shall contain not less than ten (10) milligrams of phosphoric acid, (P_2O_5), and which shall require not less than thirty (30) cubic centimeters of decinormal acid to neutralize its alkalinity.

WINE OR GRAPE VINEGAR.

2. Any vinegar manufactured for sale, offered for sale, exposed for sale, sold or delivered or in the possession of any person with intent to sell or deliver, under the name of wine vinegar or grape vinegar, shall be the product made by the alcoholic and subsequent acetous fermentations of the juice of grapes, and shall contain, in one hundred (100) cubic centimeters (at a temperature of twenty (20) degrees centigrade), not less than four (4) grams of acetic acid, not less than one (1.0) gram of grape solids, and not less than thirteen hundredths (0.13) grams of grape ash.

MALT VINEGAR.

3. Any vinegar manufactured for sale, offered for sale, exposed for sale, sold or delivered or in the possession of any person with intent to sell or deliver, under the name of Malt vinegar shall be the product made by the alcoholic and subsequent acetous fermentations, without distillation, of an infusion of barley malt or cereals whose starch has been converted by malt, is dextro-rotatory, and shall contain in one hundred (100) cubic centimeters (at a temperature of twenty (20) degrees centigrade) not less than four (4) grams of acetic acid, not less than two (2) grams of solids, and not less than two-tenths (0.2) grams of ash; and the water-soluble ash from one hundred (100) cubic centimeters (at a temperature of twenty (20) degrees centigrade), of the vinegar shall contain not less than nine (9) milligrams of phosphoric acid (P_2O_5) and which shall require not less than four (4) cubic centimeters of decinormal acid to neutralize its alkalinity.

DISTILLED VINEGAR.

4. Any vinegar manufactured for sale, offered for

sale, exposed for sale, sold or delivered or in the possession of any person with intent to sell or deliver, under the name of distilled vinegar, shall be the product made wholly or in part by the acetous fermentation of dilute distilled alcohol, and shall contain in one hundred (100) cubic centimeters (at a temperature of twenty (20) degrees centigrade), not less than four (4) grams of acetic acid, and shall be free from coloring matter, added during, or after distillation, and from coloring other than that imparted to it by distillation.

OTHER FERMENTED VINEGAR, AND REQUIREMENTS AS TO BRANDING OF "FERMENTED" AND "DISTILLED" VINEGAR.

Sec. 2. All vinegar made by fermentation and oxidation without the intervention of distillation shall be branded "fermented vinegar," with the name of the fruit or substance from which the same is made. And all vinegar made wholly or in part from distilled liquor shall be branded "distilled vinegar," and all such distilled vinegar shall be free from coloring matter added during or after distillation and from color other than that imparted to it by distillation. And all fermented vinegar not otherwise provided for in said Section 1, and not being distilled vinegar as defined in said Section 1, shall contain not less than two (2) per cent by weight upon full evaporation (at a temperature of boiling water) of solids, contained in the fruit or grain or substance from which said vinegar is fermented, and said vinegar shall contain not less than two-and-one-half-tenths of one per cent ash or mineral matter, the same being the product of the material from which said vinegar is manufactured. And all vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, and shall contain no foreign substance, and shall contain not less than four per cent, by weight of absolute acetic acid.

INGREDIENTS PROHIBITED AND MARKING OF ALL VINEGARS.

Sec. 3. No person shall manufacture for sale, offer for sale, or have in his possession with intent to sell, any vinegar found upon proper test to contain any preparation of lead, copper, sulphuric or other mineral acid, or other ingredients injurious to health. And all packages containing vinegar shall be branded on the head of the cask, barrel or keg containing such vinegar, or if sold in other packages, that each package be plainly marked with the name and residence of the manufacturer, together with brand required in section two hereof.

PENALTIES AND REQUIREMENTS AS TO BRANDING OF "CIDER" AND "FRUIT" VINEGAR.

Sec. 4. Whoever violates any of the provisions of this act shall, upon conviction, be fined not less than fifty dollars nor more than one hundred dollars, or imprisoned not less than thirty days nor more than one hundred days, or both, and shall be adjudged to pay, in addition, all necessary costs and expenses incurred in inspection and analyzing such vinegar. Every person making or manufacturing cider vinegar, who is not a domestic manufacturer of cider or cider vinegar, shall brand on each head of the cask, barrel or keg containing such vinegar, the name and residence of the manufacturer, the date when same was manufactured, and the words "cider vinegar." And no vinegar shall be branded "fruit vinegar" unless the same be made wholly from apples, grapes or other

fruit. Provided, that nothing in this bill shall be construed to prevent any farmer from manufacturing for his own private use, or offering for sale, not to exceed twenty-five barrels in any one year, pure cider or other fruit vinegar, branding the same "domestic cider vinegar," with name and date of manufacturer, and when so branded, shall be sufficient guarantee of its purity.

KANSAS BULLETIN No. 3

Bulletin Number 3, Volume IV, of the Kansas State Board of Health, contains reports of inspections and analyses under the State Food and Drugs Act. Analyses of milk, butter, cheese, meat, fish, oysters, vegetables, condiments and cereal foods were made. "F. S. Wheat Farina," manufactured by the American Cereal Company, Chicago, Ill., was found to average 1.6 ounces short weight. "Little J. Rolled Oats" were 2 ounces short on 2-lb. package.

Dr. L. E. Sayre, drug analyst, assisted by A. Ziefle, reports on 143 samples of spirits of camphor, purchased in Kansas markets. But 58 samples were up to the Pharmacopœia Standard of 10 per cent of camphor. Of this number 16 contained less than 5 per cent. An interesting part of the report consists in a report of the examination of "Orphan" patent medicines. By "Orphan" proprietaries is meant the goods in the hands of the retailer when the state food law became effective and for which the manufacturer refused to accept responsibility. Among the "Orphans" examined were:

- No. 1583—Burk's White Pine Balsam.
- No. 1629—Haller's Sure Cure Cough Syrup.
- No. 1639—Lockwood's Nerve and Bone Liniment.
- No. 1631—Reid's German Cough and Kidney Cure.
- No. 1632—Genuine Kickapoo Cough Syrup.
- No. 1636—Dr. Cunningham's Celebrated Lung Tonic.
- No. 1714—Fleury's Wahoo Tonic.
- No. 1715—Alexander Sander's Rheumatism and Malaria Cure.
- No. 1716—Warner's Log Cabin Scalpene.
- No. 1717—Warner's Log Cabin Hops and Buchu Remedy.
- No. 1718—Warner's Log Cabin Diabetes Cure.
- No. 1719—Peruvian Tonic.
- No. 1720—Warner's Log Cabin Sarsaparilla.
- No. 1723—Hops and Malt Bitters.
- No. 1725—Warner's Log Cabin Extract.
- No. 1726—Brown's Extract of Sarsaparilla.
- No. 1727—Wood's Rheumatism Cure.
- No. 1728—Ayer's Vita Nuova.
- No. 1730—Cherokee Blood Purifier.
- No. 1731—Sanford's Nerve Tonic.
- No. 1732—Dr. Turner's Shaler Pain Cure.
- No. 1733—Walcott's Pain Paint.
- No. 1734—Dr. Jackson's Penetrating Oil Liniment.
- No. 1735—Dr. Sawyer's Celebrated Oil Liniment.
- No. 1738—Brown's Arnica Liniment.
- No. 1739—Dr. McLean's Chill and Fever Cure.
- No. 1742—Dr. Sykes New England Liver Tonic.
- No. 1743—Febrina.
- No. 1744—Dr. O. P. Brown's Liver Invigorator.
- No. 1745—Phosphatic Lemon Rye.
- No. 1746—Dr. O. P. Brown's Verbian Restorative Assimilant.
- No. 1748—Dr. O. P. Brown's Blood Purifier.
- No. 1749—Hunt's Remedy.
- No. 1750—Bromolene.

- No. 1751—Dr. Turner's Shaker Neurogen.
- No. 1752—Brown's Pepsin Tonic.
- No. 1753—Leis Dandelion Tonic.
- No. 1754—Dr. J. H. McLean's Catarrh Snuff.
- No. 1755—Warner's Safe Asthma Cure.
- No. 1756—Dr. Phelix Le Bruns' G. & G. Cure.
- No. 1757—Cook's Gold Bond Oil.
- No. 1758—Health Tone.

Then follows a poem from the AMERICAN FOOD JOURNAL: "A Song for March," by T. A. Daly; Eugene Fields' celebrated poem on "The Grip"; a few clippings from contemporaries; a reprint of circular No. 118, Bureau of Animal Industry, on "The Unsuspected but Dangerously Tuberculous Cow" and "The Prophylactic Value of Vaccination," from the U. S. Marine Hospital Service Reports. The bulletin ends with a beautiful poem by Bertha Alexander Garvey, Topeka, Kan., entitled "Through Nature Unto God," the first verse of which reads:

"God is revealed through Nature's varied forms;
The whole creation shows His Majesty;
The earth attests His power and His might,
His love of beauty and of harmony."

"ANANIAS TO THE FRONT."

Trying to Fool the Public is still the game of some of the "patent medicine" manufacturers. Now they are trying to make the public believe, in their advertisements, worded with the usual cleverness, that the United States government guarantees their "medicines." These advertisements claim that: "every bottle is guaranteed by the United States Government," or "the United States Government new Pure Food and Drug Law guarantees our product." Or a number is used, or the words "Guaranteed under the Food and Drugs Act of June 30, 1906," are made to convey the impression of a government guarantee. So general has become this new attempt to deceive the public that the Secretary of Agriculture recently, in a strong public statement, said that "unless these statements are stopped, and stopped at once, and this outrageous misrepresentation ceases, the department will publish a list of the names of the manufacturers who are indulging in this campaign of deception." And then he goes on to explain all that the act means:

"The serial number and the statement that the food or drug is 'guaranteed under the Food and Drugs Act, June 30, 1906,' does not mean that the United States government guarantees the purity of the article or guarantees that it is what the label says it is. On the contrary, the statement means that the manufacturer of the article guarantees it to be pure, free from adulteration, and that he warrants every fact stated on the label to be true. It is the guarantee of the manufacturer, not the guarantee of the government.

"The department allows manufacturers to file a general guaranty. It then assigns a number to the guaranty and permits the manufacturer to print the number and the statement on the label of each package. The government assumes no responsibility for this guaranty. The serial number is assigned to fix the responsibility where it belongs—upon the manufacturer."—*Ladies' Home Journal*.

Since June 1, 1907, when the Tennessee pure food law went into effect the state has collected \$5,700—in fees for tags and stamps on feeding stuffs, and made a clear profit of \$3,700.

United States Department of Agriculture

OFFICE OF THE SECRETARY
BOARD OF FOOD AND DRUG INSPECTION

FOOD INSPECTION DECISION 86

Original Packages: Interpretation of Regulation 2 of Rules and Regulations for the Enforcement of the Food and Drugs Act.

(Continued from Page 24 March Issue.)

The right of a state to prohibit the importation of a recognized article of commerce was distinctly denied by the Supreme Court in the case of *Bowman v. Chicago and Northwestern Railway Company* (125 U. S., 465), decided in 1887. In that case the court declared invalid the statute of Iowa forbidding any railway company from bringing into the state intoxicating liquors unless previously furnished with a certificate from the county auditor that the consignee was authorized to sell them. It was held that—

A state cannot, for the purpose of protecting its people against the evils of intemperance, enact laws which regulate commerce between its people and those of other states of the Union, unless the consent of Congress, express or implied, it first obtained.

Section 1553 of the Code of the State of Iowa, as amended by C. 143 of the Acts of the 20th General Assembly in 1886 (for bidding common carriers to bring intoxicating liquors into the state from any other state or territory, without being first furnished with a certificate, under the seal of the auditor of the county to which it is to be transported or consigned, certifying that the consignee or person to whom it is to be transported or delivered is authorized to sell intoxicating liquors in the county) although adopted without a purpose of affecting interstate commerce, but as a part of a general system designed to protect the health and morals of the people against the evils resulting from the unrestricted manufacture and sale of intoxicating liquors within the state, is neither an inspection law, nor a quarantine law, but is essentially a regulation of commerce among the states, affecting interstate commerce in an essential and vital part, and, not being sanctioned by the authority, express or implied, of Congress, is repugnant to the constitution of the United States.

It will be seen from the above that in this case the question of the right of the importer to sell the article so imported in the original package was not decided.

Two years later the question just stated was squarely presented to the court in the case of *Leisy v. Hardin* (135 U. S., 100), where it was held that the statute of Iowa prohibiting the sale of intoxicating liquors, except for certain prescribed purposes, was, as applied to the sale by the importer, in original packages or kegs, unbroken and unopened, of liquors manufactured in and brought from another state, unconstitutional and void, as repugnant to the constitution of the United States granting to Congress the power to regulate commerce among the states. The law of the case was stated in the following syllabus:

A statute of a state, prohibiting the sale of any intoxicating liquors, except for pharmaceutical, medicinal, chemical or sacramental purposes, and under

a license from a county court of the state, is, as applied to a sale by the importer, and in the original packages or kegs, unbroken and unopened, of such liquors manufactured in and brought from another state, unconstitutional and void, as repugnant to the clause of the constitution granting to Congress the power to regulate commerce with foreign nations and among the several states.

Peirce v. New Hampshire, 5 How., 504, overruled.

In *Vance v. Vandercook Co.* (170 U. S., 438) the court reaffirmed its prior decisions upon the subject. The law of interstate commerce and the relation of the original package thereto is succinctly stated in the following syllabus to the opinion:

It is settled by previous adjudications of this court—

(1) * * *

(2) That the right to send liquors from one state into another, and the act of sending the same, is interstate commerce, the regulation whereof has been committed by the constitution of the United States to Congress, and, hence, that a state law which denies such a right, or substantially interferes with or hampers the same, is in conflict with the constitution of the United States.

(3) That the power to ship merchandise from one state into another carries with it, as an incident, the right in the receiver of the goods to sell them in the original packages, any state regulation to the contrary notwithstanding; that is to say, that the goods received by interstate commerce remain under the shelter of the interstate commerce clause of the constitution, until by a sale in the original package they have been commingled with the general mass of property in the state. * * *

These decisions settled the respective rights of the federal and state governments over goods moving in interstate and foreign commerce. It was determined that a state could not prevent the introduction into its territory of a recognized article of commerce; that it could not prevent the disposition by the importer in the original package of an article of commerce brought into its territory; and that Congress alone could regulate interstate commerce in such goods and the disposition of them in the original package by the importer. This is now the settled law. Hence the food and drugs act asserts the right of the United States to prohibit the sale or disposition of adulterated and misbranded food and drugs imported into a state and remaining in the original package.

The next question to be determined is, at what time in the existence of imports does the power of Congress to regulate their disposition cease? Stated otherwise, when does an original package cease to be such and the regulation of its disposition pass beyond the jurisdiction of the federal government?

This question was answered in general terms by the Supreme Court in *Brown v. Maryland*, heretofore mentioned, as follows:

It is sufficient for the present to say, generally, that when the importer has so acted upon the thing imported, that it has become incorporated and mixed up with the mass of property in the country, it has, perhaps, lost its distinctive character as an import, and has become subject to the taxing power of the state.

In the case of *Low et al. v. Austin* (80 U. S., 29), decided in 1871, it was held that—

Goods imported do not lose their character as imports, and become incorporated into the mass of property of the state *until they have passed from the control of*

the importer, or been broken up by him from their original cases.

Again in *Vance v. Vandercook Co.*, heretofore referred to, it was held that—

Goods received by interstate commerce remain under the shelter of the interstate commerce clause of the constitution, until by a sale in the original packages they have been commingled with the general mass of property in the state.

In the case of *Heyman v. Southern Railway Company* (203 U. S., 270), recently decided, it was said—

In the absence of congressional legislation goods moving in interstate commerce cease to be such commerce only after delivery and sale in the original package.

From these decisions it will be seen that merchandise brought into a state is protected from state interference only so long as it remains in the original package, unbroken, and in the hands of the importer. If the importer sells the article in the identical condition and form in which imported, or if he breaks the package, it is no longer an original package, but has become merged in the mass of property in the state and subject to its laws.

Let these decisions be applied to a hypothetical case under the food and drugs act:

A, a wholesale dealer in New York city, ships by express to B, in Hoboken, N. J., a box containing one dozen cans of adulterated condensed milk. B receives them into his store and shortly thereafter sells the box, just as received, to C.

B in this example would be liable to the penalties prescribed by the act, because he is the importer and sold the original package. But, should C, in due course, sell this identical box to D in Hoboken, he could not be successfully prosecuted under the act because he is not the importer. When the box was sold by B it lost the character of an original package and became merged in the property of the state, and the state only may regulate its disposition by C.

Suppose B, after receipt of the box, opens it and removes a can of the milk, which he sells to C. B is exempt from prosecution under the food and drugs act for the sale of this can or for a subsequent sale of the remaining eleven, even though he sells the eleven in the box. By this act of removing one can he has broken the original package and in consequence destroyed the jurisdiction of the United States over it and over him.

But suppose B simply removes the top of the box to permit inspection, in no way disturbing the contents, replaces the top, and sells box and milk to C. Has B incurred the penalties prescribed by the food and drugs act? Such a question has not been presented to the Supreme Court, but two cases very similar have been decided by the lower federal courts.

The first case, *United States v. Fox* (Federal Cases No. 15155), decided in 1869, was a suit by the United States under the internal revenue act of July 13, 1866 (14 Stat., 144), to recover the penalties therein prescribed for the sale of perfumery without affixing a proper stamp thereon. A proviso in the act prescribed that when imported perfumery was sold in the original and unbroken package in which the bottle or other inclosure was packed by the manufacturer the person so selling should not be liable to the aforesaid penalty.

Fox sold one small wooden box containing twelve 1½-ounce bottles of hair oil and a similar but larger box containing twelve bottles of pomade. He opened

both boxes, so that the purchaser might examine the contents. The top of the smaller box was put on again before delivery without change of the contents. In the larger box, containing pomade, Fox, at the request of the purchaser, substituted three smaller bottles taken from the shelf of the store, and nailed up the box.

In respect to the smaller box of oil the court said:

Although the top of this box was taken off by the defendant Fox, it was only for the purpose of enabling the witness Quivey to ascertain the kind and quality of its contents, and before the sale and delivery to him it was put on again, with the contents unchanged in kind or quantity. Under these circumstances the defendant must be considered as selling an unbroken package, the contents of which were not then required to be stamped.

But as to the sale of the box of pomade, the court said:

The package was opened, and three bottles being taken out of it, it was sold with only the remaining nine bottles in it. This was a broken package, and so the court instructed the jury.

The verdict of the jury in favor of the defendant, Fox, was set aside on motion of the United States, upon the ground that the package of pomade was not an original package, the court holding—

Goods are sold "in the original and unbroken package" within the meaning of the act of July 13, 1866 (14 Stat., 144), although the package is opened for inspection, if closed again before delivery without the contents being changed.

In the other case, *In re McAllister* (51 Fed., 282), decided in 1892, the facts were these: Two men, emissaries of a butter dealer in Baltimore, went to the store of McAllister, a dealer in oleomargarine, and sought to buy butter. McAllister stated that he had none, but could supply oleomargarine. They requested him to remove the lid from the tub of oleomargarine that they might look at it. He did so, stating that he could not sell less than 10 pounds, as it reached him in the tub from Chicago. They purchased the tub and forthwith informed on him. He was duly tried in the state court and convicted. The State Court of Appeals affirmed the conviction, and McAllister applied to the Circuit Court of the United States for a writ of habeas corpus, on the ground that the sale of the tub of oleomargarine was a sale of an original package and beyond the power of the state to prohibit, which it sought to do in an act of the legislature. The court granted the writ and announced the proposition of law involved, in the following syllabus to the case:

Removing the lid of an original package of oleomargarine, so that a prospective buyer may examine its contents, is not such a breaking of the package as will destroy its original character.

In reaching the above conclusion the court said:

It is argued that the taking the lid from the tub containing this oleomargarine was a breaking of the package so as to destroy its original character. This in no sense did it do. The goods had in no way become commingled with his property or the general property of the state (*Low v. Austin*, 13 Wall., 29). Any one calling for oleomargarine with an honest purpose would have purchased this package as an original one, even if he knew it had had its lid lifted off once to see whether or not it held another substance than it purported to hold. The laws of the United States rec-

ognize oleomargarine as a merchantable article. Being such, while a state may perhaps regulate its sale, it cannot prohibit its importation. The statute in question does this, and is unconstitutional, and in this respect void. The petitioner is discharged.

Upon the authority of these two cases, and following their reasoning, it must be concluded that B, in the last example (p. 8), is amenable to the penalties prescribed by the food and drugs act. The first of these cases has another and important significance in connection with this decision, namely, the use of the word "unbroken" as synonymous with "original," thus substantiating the statement in the preliminary part of this discussion that the courts used the words interchangeably.

An example may be profitably introduced at this point to show how far goods moving in interstate commerce may be subjected to seizure under section 10 of the act.

A, a wholesale dealer in New York city, ships 50 barrels of flour to B in St. Louis, Mo. This flour may be seized, if adulterated or misbranded, at New York city after delivery to the carrier, or at any point along the route, and may likewise be seized in St. Louis in the hands of the carrier before delivery to B, regardless of the question of whether or not it still remains in the original packages, which, in the illustration, are the barrels.

After delivery of the flour to B it may still be seized, in his hands, if it remains in the barrels (the original packages) as shipped. But if B, after delivery to him, transfers the flour to 5-pound sacks, or otherwise breaks the barrels and commingles the flour with his stock of goods, the original packages have been destroyed, and it is no longer subject to seizure by the United States; nor are the barrels liable to seizure by the United States after B disposes of them to C in Missouri, even though no alteration is made in their condition.

Having now briefly reviewed the decisions of the federal courts, asserting the power of Congress to regulate the disposition of goods imported into a state from elsewhere, it is necessary to advert to the original question of what is an original package.

The first distinct definition of an original package by the Supreme Court was announced in the case of *Austin v. Tennessee* (179 U. S., 343), where it was held that —

"Original packages are such as are used in *bona fide* transactions carried on between the manufacturer and wholesale dealers residing in different States."

This is hardly an accurate test to determine what is an original package in every case, and certainly can not restrict the provisions of sections 2 and 10 of the food and drugs act of 1906 to transactions wholly between the manufacturer and the wholesale dealer. If so, the plain intent of the act could be easily defeated, in the case of sales by importers in original packages. An illustration will forcibly demonstrate the incompleteness of the definition when applied to the food and drugs act.

It will scarcely be gainsaid that a can of tomatoes shipped by a person in no way connected with the manufacture or preparation thereof, from one State to a person in another State in no way engaged in the general sale of such commodities, is a shipment and receipt of an original package, and if the recipient disposes of it in any way, in the form in which it comes to him, he has violated the food and drugs act.

The above language of the court is materially modified by its expressions in *Schollenberger v. Pennsylvania*, heretofore referred to, where it was said—

"The right of the importer to sell can not depend upon whether the original package is suitable for retail trade or not. His right to sell is the same whether to consumers or to wholesale dealers in the article, provided he sells them in original packages."

A much more satisfactory and exact definition is contained in the decision in *Guckenheimer v. Sellers* (81 Fed., 997), where it was held that—

"An original package within the meaning of the law of interstate commerce, is the package delivered by the importer to the carrier at the initial point of shipment, in the exact condition in which it was shipped."

And when this is followed by the expression of the court in the case *In re Beine* (42 Fed., 545), where it was said—

"It is not perceived why, in the absence of a regulation by Congress to the contrary, the importer may not determine for himself the form and size of the packages he puts up for export."

it seems there could hardly arise a question in the enforcement of the provisions of the food and drugs act under consideration that could not be tested by the foregoing definitions.

Concrete examples of what have been held to be original packages are found in several of the adjudicated cases:

"*Peirce v. New Hampshire* (46 U. S., 504): A barrel of gin."

"*Bowman v. Chicago and Northwestern Railway Company* (125 U. S., 465): A barrel of beer."

"*Leisy v. Hardin* (135 U. S., 100): One-fourth barrel of beer; one-eighth barrel of beer; and a sealed case of beer."

"*Schollenberger v. Pennsylvania* (171 U. S., 1): 10 and 40 pound tubs of oleomargarine."

"*Rhodes v. Iowa* (170 U. S., 412): A box of liquors."

"*May v. New Orleans* (178 U. S., 496): Box, case, or bale in which were inclosed separate bundles and packages of dry goods."

"*Austin v. Tennessee* (179 U. S., 343): A large open basket in which were shipped numerous pasteboard boxes, each containing ten cigarettes."

"*Plumbley v. Massachusetts* (155 U. S., 461): A 10-pound package of oleomargarine."

"*In re Beine* (42 Fed., 545): A single bottle of beer or whisky, packed, sealed, and nailed up in a pasteboard or wooden box."

"*In re Harmon* (43 Fed., 372): An open pine box containing several pint and quart bottles of whisky, each done up in a paper wrapper or box and sealed."

"*In re McAllister* (51 Fed., 282): A 10-pound tub of oleomargarine, even though its lid had been removed to allow inspection by the purchaser."

"*United States v. Fox* (Federal Cases No. 15155): A small wooden box containing twelve 1½-ounce bottles of oil, even though its top had been removed by the seller to permit inspection by the purchaser."

"*Guckenheimer v. Sellers* (81 Fed., 997): A single bottle of beer, if shipped singly; several bottles of beer fastened together and so shipped constitute one package; if several bottles be inclosed in one box, barrel, crate, or other receptacle, the box, barrel, crate, or other receptacle is the original package."

In *May v. New Orleans* (178 U. S., 496), de-

cided in 1899, the Supreme Court held that where dry goods were imported into New Orleans from a foreign country in boxes, bales, and cases, each containing separate bundles of merchandise, separately marked and packed, which were so exposed for sale or taken out of the boxes, bales, and cases and sold, the boxes, bales, and cases were the original packages, and when the separate bundles were removed or exposed for sale the goods lost their distinctive character as imports and each parcel or bundle became a part of the general mass of property in the State and subject to local taxation. The syllabus of the case states the law as follows:

"May & Co., merchants at New Orleans, were engaged in the business of importing goods from abroad, and selling them. In each box or case in which they were brought into this country, there would be many packages, each of which was separately marked and wrapped. The importer sold each package separately. The city of New Orleans taxed the goods after they reached the hands of the importer (the duties having been paid) and were ready for sale. *Held*—

"(1) That the box, case, or bale in which the separate parcels or bundles were placed by the foreign seller, manufacturer was to be regarded as the original package, and when it reached its destination for trade or sale and was opened for the purpose of using or exposing to sale the separate parcels or bundles the goods lost their distinctive character as imports and each parcel or bundle became a part of the general mass of property in the State and subject to local taxation.

"(2) * * *

The case *In re Harmon* (43 Fed., 372) presented the following facts: Harmon was agent in Sardis, Miss., for Jordan, a liquor dealer in Memphis, Tenn. Panola County, in which Sardis is situated, was a "prohibition" county. Jordan shipped from Memphis to Harmon at Sardis a number of boxes containing bottles or flasks of whisky, some containing a pint, others a quart. These bottles or flasks had each a paper wrapper or box placed around it and sealed. These boxes so inclosed were by Jordan placed in ordinary pine boxes, *but without cover*, closely packed together. They were so shipped, and there was an understanding between Harmon and Jordan that the wooden boxes were to be returned to Jordan when all the bottles or flasks of whisky had been sold. (The fact that these boxes were comparatively valueless and not worth the return express charges exposed the agreement to return them to the suspicion of fraud.) Harmon received the liquors in this condition, and when a sale was effected would take each bottle out of the box and deliver to purchaser. He was convicted in the State court for selling liquor. Being imprisoned upon the judgment, he applied to the Circuit Court of the United States for a writ of habeas corpus, alleging the restraint of his liberty in violation of the Constitution of the United States, supporting this contention by the allegation that the whisky was sold in original packages and therefore beyond the jurisdiction of the State to prevent. The decision was as follows:

"Where bottles of whisky, each sealed up in a paper wrapper and closely packed together in uncovered wooden boxes furnished by an express company, and marked, "To be returned," are shipped from one State to another, the boxes, and not the

bottles, constitute the 'original packages' within the meaning of decisions of the Supreme Court upon the interstate commerce provision of the National Constitution."

The case of *Guckenheimer et al. v. Sellers et al.* (81 Fed., 997) contains the following definition of an original package:

"An original package, within the meaning of the law of interstate commerce, is the package delivered by the importer to the carrier at the initial point of shipment, in the exact condition in which it was shipped. In the case of liquors in bottles, if the bottles are shipped singly, each is an original package, but if a number are fastened together, and marked, or are packed in a box, barrel, crate, or other receptacle, such bundle, box, barrel, crate, or receptacle constitute the original package."

In the *Austin* case (179 U. S., 343) there was presented the question whether or not a pasteboard box containing 10 cigarettes, over one end of which was securely pasted the United States revenue stamp, was an original package under the circumstances of that case and within the prior decisions of the court. The facts were—

The legislature of Tennessee in 1897 passed an act to prohibit the sale of any cigarettes or introduction of them into the State for that purpose. Austin was a merchant in the State and in the course of his business purchased from a factory in North Carolina a number of packages of cigarettes put up in small boxes, containing 10 cigarettes each, there being securely pasted over the end of each box a United States revenue stamp. When the order was received by the North Carolina factory, the packages above described were placed in a pile on the floor of their warehouse and the agent of the Southern Express Company notified to come for them. An employe of the company brought with him a large basket without cover, belonging to his company, in which he gathered the individual boxes and took them to the station for carriage to Austin, in Tennessee. When the basket containing the packages reached its destination in Tennessee, the agent of the company there took it to Austin's store and emptied the packages on the counter of the store and took the basket away with him. Austin immediately exposed the cigarettes for sale and sold one package to a customer. He was indicted, tried, and convicted for this sale. His defense was that the package sold was an original package, and that the law of the State so far as applicable to this transaction was unconstitutional as an interference with interstate commerce. Upon appeal to the Supreme Court of the State the conviction was affirmed. He then sued out a writ of error to the Supreme Court of the United States. A majority of the Justices held that the original package in this case was the basket in which the packages were transported, and not the package sold. They therefore affirmed the judgment of the State court.

The results of the conclusions reached are expressed in the syllabus, as follows:

"Original packages are such as are used in *bona fide* transactions carried on between the manufacturer and wholesale dealers residing in different States. Where the size of the package is such as to indicate that it was prepared for the purpose of evading the law of the State to which it is sent, it will not be

protected as an original package against the police laws of that State.

"Where cigarettes were imported in paper packages of three inches in length and one and one-half in width, containing ten cigarettes, unboxed but thrown loosely into baskets: *Held*, that such paper parcels were not original packages within the meaning of the law, and that such importations were evidently made for the purpose of evading the law of the State prohibiting the sale of cigarettes."

The court rested its decision in this case more upon the palpable fraud upon the laws of Tennessee than upon any attempt to analyze the definition of an original package. So in *Cook v. Marshall County, Iowa* (196 U. S., 261), the boxes of cigarettes in the same form as in the *Austin* case were shoveled into the car in Missouri and delivered to Cook in Iowa in that condition. They were not inclosed in any receptacle, but shipped in bulk. The State imposed a tax of \$300 on the business of selling cigarettes. Cook resisted the payment upon the ground that he sold only in original packages and was therefore protected by the interstate commerce clause of the Constitution. Having lost in the State courts, he prosecuted a writ of error to the Supreme Court of the United States, where it was held that Cook was not exempt from the tax; that the manner of dealing disclosed by the facts in the case was a gross fraud upon the laws of Iowa, and the court would not lend its aid to such a proceeding. The question of what was an original package in the case was a matter of minor importance, though the court said the term original package did not include packages which could not be commercially transported from one State to another. The syllabus contains the law, as follows:

"The term original package is not defined by statute, and while it may be impossible to judicially determine its size or shape, under the principle upon which its exemption while an article of interstate commerce is founded, the term does not include packages which can not be commercially transported from one State to another.

"While a perfectly lawful act may not be impugned by the fact that the person doing it was impelled thereto by a bad motive, where the lawfulness or unlawfulness of the act is made an issue, the intent of the actor may be material in characterizing the transaction, and where a party, in transporting goods from one State to another, selects an unusual method for the express purpose of evading or defying the police laws of the latter State the commerce clause of the Federal Constitution can not be invoked as a cover for fraudulent dealing.

"This court adheres to its decision in *Austin v. Tennessee*, 179 U. S., 343, that small pasteboard boxes each containing ten cigarettes, and sealed and stamped with the revenue stamp, whether shipped in a basket or loosely, not boxed, baled, or attached together, and not separately or otherwise addressed but for which the express company has given a receipt and agreement to deliver them to a person named therein in another State, are not original packages and are not protected under the commerce clause of the Federal Constitution from regulation by the police power of the State."

From a consideration of all the decisions and upon the basis of common understanding of the words, it seems that an original package within the meaning

of the food and drugs act is the unit, complete in itself, delivered by the shipper to the carrier, addressed to the consignee, and received by him in the identical condition in which it was sent, without separation of the contents in any manner. This unit may be a hogshead containing 500 bottles of wine, or a single can of tomatoes, or it is a small ounce phial of some drug if shipped to the consignee in that form; and if the consignee sells or gives away any one of the three in the unaltered condition in which he received it, if the contents be adulterated or misbranded, he has violated the act.

This presentation of the decisions of the courts would not be complete, and certainly not satisfactory, if some reference were not made to three very important decisions, two of the Supreme Court of the United States—*Plumley v. Massachusetts* (155 U. S., 461) and *Crossman v. Lurman* (192 U. S., 189)—and one of the Circuit Court of Appeals of the Sixth Circuit—*Arbuckle Bros. v. Blackburn, Dairy and Food Commission of Ohio* (113 Fed., 616). But they are referred to here simply to show that, so far as the food and drugs act of June 30, 1906, is concerned, they are in a sense obsolete. These decisions were rendered prior to the passage of the aforesaid act, and asserted the right of the States to prohibit the sale and traffic in adulterated and misbranded foods and drugs even in original packages. They were rendered in the absence of Congressional action covering the entire subject-matter of interstate commerce in foods and drugs. Since then Congress has assumed its full authority over the subject by the passage of the act of June 30, 1906.

The decisions proceeded upon the well-recognized principle that in the absence of complete Federal regulation of interstate and foreign commerce effect will be given to the legitimate exercise of the police powers of the States, even though incidentally affecting that commerce. There can scarcely be a doubt that since the enactment of the food and drugs act all power of the States over interstate commerce in foods and drugs, including the regulation of importations and sales in original packages, has been abrogated, and the subject is entirely and exclusively under the control of the Federal Government. That such is the state of the law is clearly and succinctly shown by the following quotation from the opinion of Justice Harlan in the case of *Reid v. Colorado*, 187 U. S., at page 146:

"It is quite true, as urged on behalf of the defendant, that the transportation of live stock from State to State is a branch of interstate commerce and that any specified rule or regulation in respect of such transportation, which Congress may lawfully prescribe or authorize and which may properly be deemed a regulation of such commerce, is paramount throughout the Union. So that when the entire subject of the transportation of live stock from one State to another is taken under direct national supervision and a system devised by which diseased stock may be excluded from interstate commerce, all local or State regulations in respect of such matters and covering the same ground will cease to have any force, whether formally abrogated or not; and such rules and regulations as Congress may lawfully prescribe or authorize will alone control. * * * The power which the States might thus exercise may in this way be suspended until national control is abandoned and the

subject be thereby left under the police power of the States."

This case involved the validity of a certain act of the State of Colorado designed to prevent the introduction of infectious and contagious diseases among the cattle of the State. The defendant contended that the act was void as an interference with interstate commerce, and because the subject-matter had already been covered by an act of Congress. The Supreme Court sustained the validity of the act of Colorado, because a legitimate exercise of the police power in the absence of complete regulation by Congress covering the matter. The act of Congress in force at that time did not attempt a full and complete regulation of interstate transportation of animals.

The principle that the State police laws affecting interstate and foreign commerce must yield to the regulation of Congress when it shall assume jurisdiction is well and tersely stated by Freund in his work on Police Power, at page 82, as follows:

"SEC. 85. The State may enact measures for the protection of safety, order, and morals, though affecting foreign and interstate commerce, subject to the following principles:

"I. Every measure of State legislation, however legitimate in itself, yields to positive regulation of interstate or foreign commerce by act of Congress, inconsistent with such measure or intended fully to cover the same matter."

* * *

F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,
Secretary of Agriculture.

WASHINGTON, D. C., January 31, 1908.

COURT SCORES DAIRY AND FOOD COMMISSIONER.

Madison, Wis., March 26.—Judge Charles K. Tenney, sitting for Judge Donovan in the municipal court, administered a rebuke to the department of the state dairy and food commissioner for precipitately arresting reputable citizens when they are found to be technically guilty of infractions of the laws as harshly interpreted by the state department. A. A. Pardee, pioneer druggist and well established in this community as a man of honesty and integrity, was charged with selling some spirits of camphor of less strength and quality than required. The defendant said he purchased the camphor from a supply house in Chicago and did not know its precise test, but would rest the matter upon the veracity of the chemist of the state commission. Judge Tenney remitted the penalty and scored the inspectors of Commissioner Emery for being too harsh in their endeavor to make a showing of activity. He said it would be reasonable for the inspectors to give a retailer some warning and an opportunity to correct an error of quality in his goods without being dragged into court on a technical charge.—*Milwaukee Free Press.*

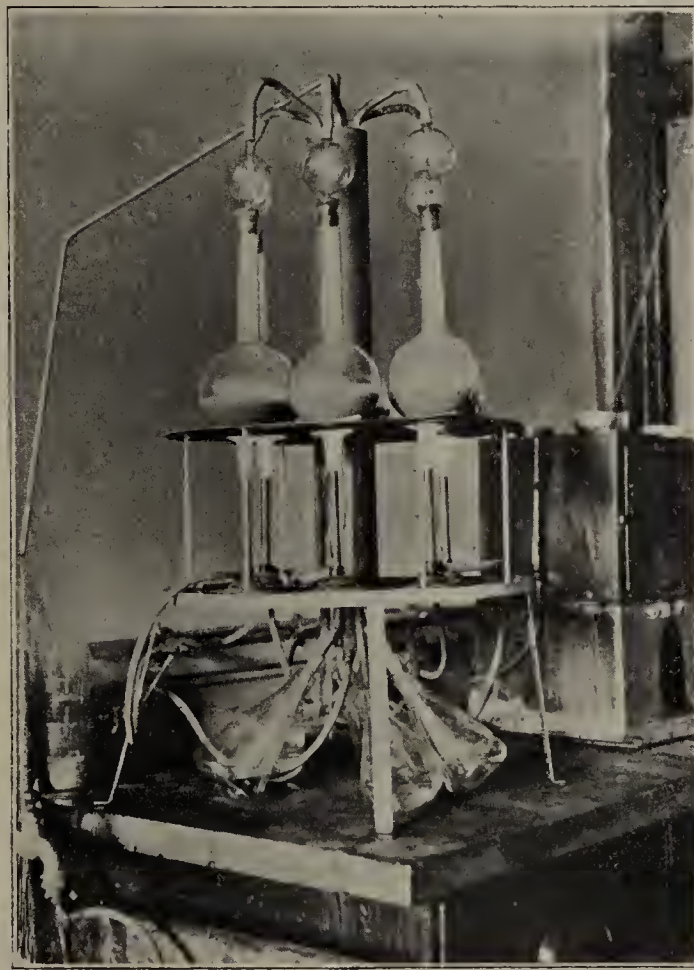
Maple sugar manufacturers oppose Dr. Charles Harrington's Massachusetts bill to prevent the adulteration of sugar foods and restrict the use of saccharin, on the ground that it is a useless repetition of legislation.

SCIENTIFIC

A NEW FORM OF DISTILLING APPARATUS.

BY E. N. EATON, M. S.

The ordinary Kjeldahl condenser is somewhat bulky, requires much bench space and usually also a center table where the lamps and flasks may be manipulated on one side of the condenser and the distillate on the other. Yet, this form of condenser is very convenient where there is an intermittent or not entirely dependable water supply. To overcome some of the disadvantages of this condenser, or rather to adapt the apparatus to the demands of private analysts in cities where rents are high and consequently space valuable, and apt to be insufficient, I devised the form of condenser shown in photograph, which has now been in frequent use for two years with satisfaction and has



furnished the model from which several others for different laboratories have been made. It accommodates six flasks which are here shown in operation in determination of nitrogen. The central condenser is a tube of copper 3 inches in diameter by 23 inches long. The base and flask support are of galvanized iron with holes 2 inches in diameter in the latter for flame. Both are attached to the central cylinder, but the lower shelf furnishes the chief support. The condensing tubes are of block tin, bent at the top to accommodate a straight safety bulb, and at the bottom to receive flask for collecting distillate. Possibly it would be preferable to cut the block tin tubes at an angle of about 45 and use bent Hopkins' safety tubes, in which case the central condenser should be somewhat shorter. Water enters the apparatus through a brass tube with stop cock at bottom and leaves at top. The very small

stream of water shown is quite sufficient to condense steam when running full capacity and the condensing water leaves the apparatus below room temperatures. Some minor changes would be made in designing a new apparatus and water and gas pipes at the side or front instead of at the back of the apparatus would perhaps be much more convenient.

The first apparatus complete cost only about \$8 and others of the same pattern were made for much less.

The advantages of the apparatus are briefly:

Small initial cost.

Comparatively large cooling capacity.

Compactness of construction.

Adaptability for side tables.

Lamp and flask supports not in Kjeldahl condenser.

Lamp base protects distillate from atmospheric condensation on the cool condenser; also from liquid being distilled should accident occur.

Adaptability for distillation of various kinds of substances, including Reichert Vollny. No. on Butter, for which the spiral block tin tubes are unsuited, giving too low results.

COURT DECISIONS.

SUPREME COURT, APPELLATE DIVISION.

First Department, March, 1908.

George L. Ingraham,

Frank C. Laughlin,

John Proctor Clarke,

James W. Houghton,

Francis M. Scott, JJ.

The People of the State of New York ex rel. Archibald McAuley, Appellant, vs. Charles G. F. Wahle, City Magistrate, Respondent, impleaded with the People of the State of New York, Respondent. No. 1838.

Appeal from order dismissing writ of habeas corpus.

William C. Breed, for Appellant.

Saul J. Dickheiser, Deputy Attorney General, for Respondent.

INGRAHAM, J.:—

The relator was arrested on the 30th of October, 1907, by the defendant, Gaffney, a police officer in the City of New York, upon a warrant issued by the defendant Wahle, City Magistrate of the City of New York, charged with a violation of Section 26 of Article 2 of the Agricultural Law of the State of New York (Chap. 538 of the Laws of 1893, as amended by Chap. 426 of the Laws of 1894; Chap. 768 of the Laws of 1897, and Chap. 385 of the Laws of 1902). The relator claims that he was illegally held because the deposition upon which the warrant was issued failed to show that he had violated Section 26 of the Agricultural Law and that the warrant was, therefore, null and void. From the return of the police officer it appears that he received a warrant signed by the defendant, a City Magistrate, requiring him to arrest the defendant; that in pursuance to that command he arrested the relator and before he was arraigned before the Magistrate this writ of habeas corpus was served upon him, and in pursuance of the command of this writ he produced the body of the relator before the Court. The City Magistrate also made a return from which it appeared that he issued a warrant upon certain depositions which were made a part of the return charging the relator with a violation of Section 26 of Article 7

of the Agricultural Law. From these depositions it appeared that the relator at the premises No. 502 East 16th Street, Borough of Manhattan, in said county, did on October 22nd, 1907, sell, keep for sale and offer for sale an article, substance and compound, made, manufactured and produced from animal fats and animal or vegetable oils, not produced from unadulterated milk or cream from the same, to-wit, the article known as Oleomargarine, in violation of Section 26 of the Agricultural Law of the State of New York. That on that day the deponent went to said premises and there met the relator and asked him whether he had any oleomargarine for sale, and the relator stated to the deponent that he had the best quality of oleomargarine, and then and there produced from a case in plain view of the deponent a small brick of white substance which was wrapped in an oiled paper, which paper was labeled "Oleomargarine"; that the relator stated that he would sell the package so marked for the sum of twenty cents, and the deponent thereupon paid to him the price asked in lawful money of the United States, and the relator thereupon delivered to the deponent the said package which was labeled "Oleomargarine." There was also submitted a deposition of a chemist from which it appeared that the deponent received from the former deponent on October 22, 1907, a brick of substance wrapped in oiled paper and labeled "Oleomargarine"; that said substance was pearl white and without color; that he analyzed the said substance and found the same to be what is commonly known as "Oleomargarine"; that the same was not natural butter, nor of the color of natural butter produced from pure unadulterated milk or cream, or both, which was a yellowish hue.

In reply the relator alleged that the facts stated in the said deposition do not constitute a crime. By Article 20 of the Agricultural Law (Chap. 338 of the Laws of 1893) Oleomargarine is defined to be "any article or substance in the semblance of butter . . . not the usual product of the dairy and not made exclusively of pure and unadulterated milk or cream; or (2) any article or substance into which any oil, lard or fat not produced from milk or cream enters as a component part, or into which melted butter or butter in any condition or state, or any oil thereof, has been introduced to take the place of cream." Article 26 provides that "No person by himself, his agents or employees . . . shall sell, keep for sale or offer for sale any article, substance, or compound made, manufactured or produced in violation of the provisions of this section, whether such article, substance or compound shall be made or produced in this state or elsewhere"; and "Any person manufacturing, selling, offering or exposing for sale, any commodity or substance in imitation or semblance of butter the produce of the dairy, shall be deemed guilty of a violation of the Agricultural Law, whether he sells such commodity or substance as butter, oleomargarine or under any other name or designation whatsoever." What would seem to be prohibited by this statute is the manufacture or sale of an article known as oleomargarine, or any article or product in imitation or semblance of natural butter, made or manufactured out of or from any animal fat or vegetable oil not produced from unadulterated milk or cream of the same.

By Section 20 of the Act the term "Oleomargarine" is defined to be "any article or substance in the semblance of butter . . . not the usual product of the dairy, and not made exclusively of pure and unadul-

terated milk or cream; or (2) or any article or substance into which any oil, lard or fat not produced from milk or cream enters as a component part."

In *People vs. Marx* (99 N. Y., 377) the Court of Appeals in construing a statute which provided that "No person shall manufacture out of any oleaginous substance, or any compound of the same, other than that produced from unadulterated milk or of cream from the same, any article designed to take the place of butter or cheese produced from pure unadulterated milk or cream of the same, or shall sell or offer to sell the same as an article of food," held that the prohibition of this statute applied to an article designed to take the place of dairy butter or cheese; that "the object and effect of the enactment under consideration was not to supplement the existing provisions against fraud and deception by means of imitations of dairy butter, but to take a further and bolder step, and by absolutely prohibiting the manufacture or sale of any article which could be used as a substitute for it, however openly and fairly the character of the substitute might be avowed and published, to drive the substituted article from the market, and protect those engaged in the manufacture of dairy products, against the competition of cheaper substances, capable of being supplied to the same uses, as articles of food"; and that this prohibition violated the provisions of Article I, Section I, of the Constitution which provides that "no member of this state shall be disfranchised or deprived of any of the rights and privileges secured to any citizen thereof, unless by the law of the land, or by the judgment of his peers"; and Section 6 of Article I of the Constitution which provides that no person shall be deprived of life, liberty, or property, without due process of law, and also the provision of the Fourteenth Amendment of the Constitution of the United States; that these constitutional principles were violated by an enactment which absolutely prohibited an important branch of industry for the sole reason that it competes with another, and may reduce the price of an article of food for the human race. So, that if this statute is to be construed as prohibiting the manufacture or sale of oleomargarine, it is void as a violation of these constitutional provisions. The learned Deputy Attorney General, however, insists that these depositions in substance charged the defendant with the sale of an article or substance in imitation or semblance of natural butter, and that, I think, is the only question. From these depositions it appeared that the relator sold an article called "Oleomargarine" which consisted of "a small brick of white substance which was wrapped in an oiled paper and which was labeled 'Oleomargarine.'" There was no statement by the purchaser of this article that it imitated or was in semblance of natural butter. The chemist to whom the purchaser of this article delivered it for analysis deposed that he received from the purchaser a brick or substance wrapped in oiled paper and labeled "Oleomargarine," and that such substance was pearl white and without color; that he analyzed the substance and found it to be what was commonly known as "Oleomargarine"; that the same was not natural butter, nor of the color of natural butter produced from pure and unadulterated milk or cream, or both, which has a yellowish hue. It seems to me that this deposition negatives the fact that this substance was an imitation or in semblance of natural butter but, on the contrary, that it was just what it purported to be, oleomargarine, and the essential facts necessary to constitute the crime

were therefore expressly disproved by the deposition. In *People vs. Arensberg* (105 N. Y., 123) the Court of Appeals, by Judge Rappalo, who delivered the opinion in *People vs. Marx* (Supra) on an appeal from the conviction of a person who was indicted for unlawfully, wilfully and knowingly having in his possession for sale, and causing and procuring to be sold to certain persons, a number of pounds of a certain article and product made and manufactured in semblance and imitation of natural butter, under the provisions of a statute which prohibited the manufacture out of any animal fat or vegetable oils not produced from unadulterated milk or cream from the same, or any product in imitation or semblance or designed to take the place of natural butter produced from milk, etc., held that the statute was constitutional; that a person manufacturing or selling oleomargarine may be legally required to sell it for and as what it actually is, and upon its own merits and are not entitled to the benefit of any additional market value which may be imparted to it by resorting to artificial means to make it resemble dairy butter in appearance; that the statutory prohibition is aimed at a designed and intentional imitation of dairy butter and that there was sufficient evidence to authorize the jury to find that the oleomargarine sold by the defendant was by artificial means, not essential or incident to the manufacture of the article, but resorted to for the mere purpose of imitation, made to resemble dairy butter; and for that reason the judgment was affirmed.

There is no case cited by the learned Deputy Attorney General which holds that the sale of oleomargarine is or can be prohibited by law; and it seems to us that as these depositions expressly negative the fact that this article was actually manufactured "in imitation or semblance of butter the product of the dairy," the relator was entitled to be discharged.

It follows that the order appealed from must be reversed and the relator discharged.

All Concur.

INTERNAL REVENUE DECISIONS.

(T. D. 1327.)

Revenue officers to co-operate with State officers in the suppression of certain violations of law.

[Int. Rev. Circular No. 716.]

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., March 23, 1908.

To Collectors and Revenue Agents:

This office is of the opinion that co-operation between the federal and state authorities will contribute to the suppression of certain violations which are alike violations of the internal revenue laws and the local laws of certain states.

The violations referred to are those relating to illicit distilling and to the illicit manufacture or coloration of oleomargarine and the sale of same as butter. It has been determined, therefore, that hereafter there should be such co-operation by the officers of this bureau with the officers in the several states in the prosecution of violations of this character as the law and the conditions justify. To this end revenue officers should assist the state authorities so far as may be in their power, and not in conflict with Section 3167, Revised Statutes, in securing the prosecution and conviction of offenders of the class indicated under state as well as federal laws.

This circular is not to be construed, however, as ap-

plying to the class of cases in which compliance with the federal laws is held to be prima facie evidence of violations of state laws, or as in any way modifying the position heretofore taken by this office that returns and reports made by taxpayers under compulsion of law are confidential communications which should be used only for the purpose for which given.

JOHN G. CAPERS,
Commissioner.

(T. D. 1333.)
Oleomargarine.

Liability of hotel or restaurant keeper serving to guests oleomargarine colored by himself.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., March 31, 1908.

Gentlemen: In reply to your letter of the 26th instant, you are informed that Section 2 of the act of May 9, 1902, amending the oleomargarine act, provides that—

"Any person that sells, vends, or furnishes oleomargarine for the use and consumption of others, except to his own family table without compensation, who shall add to or mix with such oleomargarine any artificial coloration that causes it to look like butter of any shade of yellow, shall also be held to be a manufacturer of oleomargarine."

In view of the provision of law quoted, a hotel or restaurant keeper who adds coloring to uncolored oleomargarine and serves same to guests unquestionably incurs liability as a manufacturer of oleomargarine.

Respectfully,

JOHN G. CAPERS,
Commissioner.
Messrs. ————

(T. D. 1329.)
Fortified Wines.

Use in the manufacture of medicines of wines fortified with spirits withdrawn free of tax is prohibited.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., March 25, 1908.

Gentlemen: In reply to your request of the 14th instant for a copy of the ruling holding that sweet wines fortified with brandy, withdrawn free of tax, may not be used in the manufacture of U. S. P. preparations, you are informed that there is no published ruling on the question, the ruling being the substance of unpublished letters by this office as to the construction to be placed upon Section 6 of the act of June 7, 1906, which reads in part as follows:

"That any person . . . who shall rectify, mix, or . . . such fortified wines shall, . . . be punished for each such offense . . . shall not be held to apply to the blending of pure sweet wines fortified under the provisions of said act . . ."

This office holds that the mixing of fortified wines with any material, except the blending authorized by the act of October 1, 1890, is prohibited by this section.

Respectfully,

JOHN G. CAPERS,
Commissioner.
Messrs. ————, Los Angeles, Cal.

(T. D. 1332.)
Distilled Spirits.

The addition of caramel to spirits constitutes rectification.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., March 26, 1908.

Sir: In your letter of February 10 and that of February 17, you take the position that this office has continuously held that the addition of coloring matter to spirits does not constitute rectification.

The records of this office, however, disclose that beginning with February 10, 1872 (15 Int. Rev. Rec., 53), the contrary has been held. On that date Commissioner Douglass issued Special No. 111, in which he held that distillers cannot, in their capacity of distillers, mix their spirits with burnt sugar or other coloring matter upon their distillery premises or anywhere else, and also holding that the mixing of spirits with any material is rectification.

Practically the same was held by Commissioner Green B. Raum on August 7, 1876 (22 Int. Rev. Rec., 253). Under this ruling the addition of flavoring and coloring substances to spirits was prohibited.

In 21 Internal Revenue Record (p. 73) a ruling is found in which it is held that putting burnt sugar into packages by distillers before filling is unlawful.

In Internal Revenue Manual, 1888 (p. 143), it is held that the addition to distilled spirits of any coloring matter or foreign substance which in any way changes the character of the spirits or remains incorporated therein is regarded as rectification.

The same ruling is contained in Regulations, series 7, No. 1, issued February 19, 1880 (p. 38), and in the same series issued June 9, 1893 (p. 33); also in Regulations 1, concerning assessments, issued October 29, 1900.

On March 30, 1905, Commissioner John W. Yerkes issued T. D. 883, which holds that the addition of caramel to stamped packages of spirits by liquor dealers involves them in liability to special tax as rectifiers.

There are also some court decisions bearing upon this matter, such as the case of United States v. Quantity of Distilled Spirits (3 Ben. 70; Fed. Cas. 11494; 9 Int. Rev. Rec. 9). In that case the court held that a rectifier is one who makes any mixture of spirits with anything else and sells it under any name.

In the cases of Michael v. Nunn and Stark v. Nunn (101 Fed. Rep. 423) the court said:

"It strikes me that an interpretation that would undertake to say that certain materials are within the statute and other materials are not within it, when the statute itself uses the term 'any material,' would nullify the statute."

You will observe, therefore, that this office has for years adhered to the position that the addition of coloring matter to spirits constitutes rectification.

Respectfully,

JOHN G. CAPERS,
Commissioner.
Mr. ————

The Hartford Provision Company, of Barry, Ill., were found guilty of selling unwholesome meat. Since the alleged offense was committed the company disbanded, but they will have to pay a fine. The company was charged with selling meat from a cow that had fallen in a scale fit and was drowned. The information was filed by government officials.

If a special department cannot be created to enforce drug regulations they ought to be administered by the State Board of Pharmacy.

DR. WILEY VERSUS THE BIVALVE.

Whenever Dr. Wiley, the sapient chief chemist of the Agricultural Department at Washington, opens his mouth to say something—which is pretty often—he manages to impart to his hearers information which has all the charm of novelty, and savors more of the realms of fable than of the world of sober fact.

It is the worthy Doctor's misfortune to regard every notion that passes through his mind as having some counterpart in reality, and for him well-established facts simply have no existence as long as they do not agree with the mental image he has conceived of them. It is a characteristic of idealists of Dr. Wiley's stamp, that they have no thought of the consequences that may follow their irresponsible utterances; that they may have an untoward effect upon an impressionable audience, giving rise to an unreasoning prejudice on the part of the public against those things which are the objects of the Doctor's fulminations is a consideration that apparently does not come within the province of his thoughts.

His latest diatribe is directed at the oyster; from his inner consciousness he has evolved the "fact" that the oyster is really a most unwholesome food; he gives no statistics as to how many millions of people are killed every year from eating oysters, but contents himself with the sweeping statement that "any oyster, an hour after it is opened, is dead, and not good." The sensational magazine and newspaper writers, who are always on the *qui vive* for a Wileyan utterance, naturally find such statements grist for their mills, and hasten to send them forth among an anxious public with all the lurid embellishments of which sensationalism is capable. The great number of people who regard the *ipse dixit* of a government official as a manifestation of the divine afflatus, are naturally sacred by what they have read, and give up a loved dish in horror, not stopping to reflect that if there were any truth in the Doctor's statement they would not be alive at the present time to receive his oracular utterances.

That the number of such timid people is large is proved by the fact that, since the Wiley press bureau gave the information in question to the world, the oyster-growers of Boston, Providence, New Haven, New York, Crisfield, Norfolk, Cambridge and other parts of the country report that their trade has been injured by reason of those vaporings, and they have found it necessary to utter a protest against Dr. Wiley's attack, and to show that it is actually without foundation. Indeed, an elaborate investigation carried on by the bacteriological staff of the Health Department of Chicago, in the course of which a great number of every kind of oysters found on the Chicago market was subjected to a thorough examination, showed that neither typhoid nor colon bacilli were found in the oysters; moreover, the investigators explicitly declare that "from examinations performed, it appears that oysters possess an inherent power to directly destroy typhoid bacilli." Another statement of Dr. Wiley's regarding the oyster, is so deliciously fanciful and so suggestive of the lucubrations of the "nature fakirs" that it is worth repeating: "If oysters are properly packed and kept cold, and properly fed, they can be shipped eight or ten days without danger. I took with me across the ocean a barrel of oysters, and I fed them every day cornmeal gruel and salt, and the steward came to me and said: 'I wish you would come

down with me and notice those oysters. Every time I feed them I can hear them chew.' And when you put your ear down to the barrel you could hear them opening their shells and closing them." After this we can not but conclude that if Dr. Wiley were to put his ear close enough to the ground he would hear the grass grow.

Seriously, we believe that Dr. Wiley has missed his vocation. A man blessed with his superabundance of imagination would have succeeded to a marvel in the field of letters, and while omniscience is his foible, fiction is unquestionably his forte.—*National Druggist*.

DILLY-DALLYING WITH THE PURE FOOD LAW.

While the federal pure food and drugs law, intrinsically a highly meritorious measure, has been on the statute books for many months, it seems to have been construed by the agricultural department with such leisurely and neglectful nonchalance that a large number of substantial manufacturers have been actually embarrassed in the operation of their business, not to mention the money loss sustained by reason of the fact that they do not know, officially, where they stand under the conflicting terms of the measure.

The whole trouble appears to arise over the failure of the attaches of the department charged with the enforcement of the law to proceed straightway to such tests as will determine what medical and other compounds are or are not within its latitude. In all justice, the manufacturers, in the majority of instances, cannot be blamed for not complying with their portion of the contract. It is, primarily, to their interest to find out with a minimum of delay what preparations they can and cannot manufacture and place upon the market, and the manner in which they must go about it to insure the approval of the department.

Evidence is available to the effect that the tests made by the expert chemists employed by many manufacturers have been at variance with the verdicts rendered by the department. The divergences were of that perfectly legitimate nature likely to arise where men pursue honest and capable investigations along similar lines. Efforts on part of the manufacturers to harmonize these differences, or to secure such co-operation from the department as would settle them legally have, we are informed, been met by indifferent and exasperating delay and complications from the officials paid to pass on these matters.

Such a policy is inexcusable. It demoralizes and hampers substantial business interests of the country without justification. The pure food and drugs law was enacted for the benefit and protection of the public, and its principle is eminently righteous and praiseworthy. But the slow, vacillating and uncertain procedure which leaves manufacturers helpless to proceed about their business, works wrong on the public almost as gravely as it does on the manufacturers and their employes. The department should, without further aimless procrastination, proceed to such tests as will permanently determine the interpretation of each single provision of the law.

Otherwise, they are bringing the law itself into disrepute and obstructing legitimate business.—*Atlanta Constitution*.

And now, Dairy and Food Commissioner H. R. Wright, of Iowa, is getting after ice in oysters.

KANSAS BULLETIN ON SOFT DRINKS.

One of the harbingers of spring, and which is as certain as the advent of the robin or the small boy and marbles, is the activity of the manufacturers of soft drinks. This activity is already in evidence; therefore, "We hail thee, spring!"

Last season this department endeavored to advise manufacturers of the requirements of the law as to labels, and to point out certain sanitary requirements in the conduct of the business. We believe that the law applying to labels has been quite generally observed, and bottlers are to be commended for their promptness in that particular.

We wish to impress upon the minds of all manufacturers of soft drinks the importance of having a wholesome water supply and of thoroughly cleansing each bottle before refilling. A simple rinsing of the bottle is not sufficient cleansing; each bottle must be brushed inside or washed with shot or a similar substance, and then thoroughly washed with fresh, clean water. Often bottles are returned containing a number of flies, and if such bottles are not properly and effectively cleansed there is danger of infection of some kind in the contents of the bottle.

Dealers should be instructed that bottles should be turned upside down immediately upon being emptied, in order that they may drain, and that flies may not get into them. The sweetened pop is an attractive bait to flies, of which they will readily avail themselves unless the bottle is cared for as above indicated.

The public health may not be endangered by an improper label, but serious consequences may arise to the consumers of soft drinks that are not pure.

Our inspectors will make a close scoring on sanitary conditions this season, and we trust that the improvement of conditions noted last season may be continued until the Kansas product may be synonymous with the "Best Product."

THE TEST FOR BAD OYSTERS.

The oyster being almost entirely composed of water, its density is but little more than that of water. The decomposition that, sooner or later, overtakes all fish, flesh, fowl and game products and terminates their usefulness as food is attended with an evolution of gas. A very small quantity of this gas is sufficient to overcome the difference of density between an oyster and fresh water and the former will float on the surface of the latter. This explains why the record is bare, or nearly so, of cases of ptomaine poisoning caused by the shucked oyster. The dealer sees the bad ones floating and throws them out. In the presence of the great numbers of victims of ptomaine poisoning caused by fish, flesh and fowl, this is a proud record. Incidentally it shows the mistake of dry refrigeration for the shucked oyster. Here is the way to get rid of the bad oysters: Drain off the liquor, place them in cool, fresh water, *quantum sufficit*, and stir gently, to give every one that wants to float a chance to rise to the surface. After all have settled down reject the floaters.—*Iowa Health Bulletin*.

Greater New York papers devoted considerable space to the Pure Food Exposition given by the New York Retail Grocers' Association, with L. J. Callanan as manager. Cooking lectures were given by Mrs. Lily Halworth Wallace of London, England. Music by the Seventh Regiment Band.

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THE AMERICAN FOOD JOURNAL



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CHICAGO, MAY 15, 1908

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CHICAGO, MAY 15, 1908.

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New Ohio General Food and Drug Law.

As Amended May 1st, 1908.
Effective July 1st, 1908.

An act to provide against the adulteration and misbranding of food and drugs.

Section 1. That no person shall, within this state, manufacture for sale, offer for sale, sell, deliver or have in his possession with intent to sell or deliver any drug or article of food which is adulterated, within the meaning of this act; that no person shall, within this state, offer for sale, sell, deliver or have in his possession with intent to sell or deliver any drug or article of food which is misbranded, within the meaning of this act.

Section 2. The term "drug," as used in this act, shall include all medicines for internal or external use or for inhalation, antiseptic, disinfectants and cosmetics. The term "food," as used herein, shall include all articles used for food, drink, flavoring extract, confectionery, or condiment by man, whether simple, mixed or compound. The term "flavoring extract," as used herein, shall include any article used as a flavor for foods or drinks, whether used or sold under the name of extract, flavor, essence, tincture, or any other name.

Section 3. An article shall be deemed to be adulterated within the meaning of this act:

(a) In the case of drugs: (1) If, when sold under or by a name recognized in the eighth decennial revision of the United States Pharmacopœia, or the third edition of the National Formulary, it differs from the standard of strength, quality or purity laid down therein; (2) if, when sold under or by a name not recognized in the eighth decennial revision of the United States Pharmacopœia, or the third edition of the National Formulary, but which is found in some other pharmacopœia, or other standard work on materia medica, it differs materially from the standard of strength, quality and purity laid down in such work; (3) if its strength, quality or purity falls below the

professed standard under which it is sold; (4) if it is an imitation of, or offered for sale under the name of another article; (5) if the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package; (6) if it contains any methyl or wood alcohol.

(b) In the case of food, drink, flavoring extract, confectionery or condiment: (1) If any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its quality, strength or purity; (2) if any inferior or cheaper substance or substances have been substituted wholly, or in part, for it; (3) if any valuable or necessary constituent or ingredient has been wholly, or in part, abstracted from it; (4) if it is an imitation of, or is sold under the name of another article; (5) if it consists wholly, or in part, of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or, in the case of milk, if it is the produce of a diseased animal; (6) if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; (7) if it contains any added substance or ingredient which is poisonous or injurious to health; (8) if, when sold under or by a name recognized in the eighth decennial revision of the United States Pharmacopœia or the third edition of the National Formulary, it differs from the standard of strength, quality or purity laid down therein; (9) if, when sold under or by a name not recognized in the eighth revision of the United States Pharmacopœia, or the third edition of the National Formulary, but is found in some other pharmacopœia, or other standard work on ma-

teria medica, it differs materially from the standard of strength, quality or purity laid down in such work; (10) if the strength, quality or purity falls below the professed standard under which it is sold; (11) if it contains any methyl or wood alcohol.

Section 3a. An article shall be deemed to be misbranded within the meaning of this act:

(a). In the case of drugs: (1) If the package fails to bear a statement on the label of the quantity or proportion of any grain or ethyl, alcohol, morphine, opium, cocaine, her(e)oin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, acetanilide or any derivative or preparation of any such substances contained therein. Provided, that the provisions of this section shall not apply to the prescriptions of regularly licensed physicians, dentists and doctors of veterinary medicine, nor to such drugs and preparations as are officially recognized in the eighth decennial revision of the United States Pharmacopœia, or the third edition of the National Formulary, and which are sold under the name by which they are so recognized; (2) if the package containing it or any label thereon shall bear any statement, design or device regarding it or the ingredients or substances contained therein, which shall be false or misleading in any particular.

(b). In the case of food, drink, flavoring extracts, confectionery or condiment: (1) If the package fails to bear a statement on the label of the quantity or proportion of any morphine, opium, cocaine, her(e)oin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate or acetanilide, or any derivative or preparation of any such substances contained therein; (2) if it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so; (3) if in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package; (4) in case of any flavoring extract, for which no standard exists, if the same is not labeled "artificial" or "imitation" and the formula printed in the same manner hereinafter provided for the labeling of "compounds" or "mixtures" and their formulae; (5) if the package containing it or any label thereon shall bear any statement, design or device regarding it or the ingredients or substances contained therein, which shall be false or misleading in any particular; provided, that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food or drink, if each and every package sold or offered for sale be distinctly labeled in words of the English language as mixtures or compounds, with the name and percentage, in terms of 100 per cent of each ingredient therein. The word "compound" or "mixture" shall be printed in letters and figures not smaller in either height or width than one-half the largest letter upon any label on the package and the formula shall be printed in letters and figures not smaller in either height or width than one-fourth, the largest letter upon any label on the package and such compound or mixture must not contain any ingredient that is poisonous or injurious to health.

Section 4. Every person manufacturing, offering or exposing for sale, or delivering to a purchaser, any drug or articles of food included in the provisions of

this act, shall furnish to any person interested or demanding the same, who shall apply to him for the purpose, and shall tender him the value of the same, a sample sufficient for the analysis of any such drug or article of food which is in his possession.

Section 5. Whoever refuses to comply, upon demand, with the requirements of section 4, and whoever violates any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction shall be fined not exceeding one hundred nor less than twenty-five dollars, for the first offense, and for each subsequent offense shall be fined not exceeding two hundred dollars nor less than one hundred dollars, or imprisoned in the county jail not exceeding one hundred, nor less than thirty days, or both. And any person found guilty of manufacturing, offering for sale or selling an adulterated article of food or drug under the provisions of this act, shall be adjudged to pay in addition to the penalties hereinbefore provided for, all necessary costs and expenses incurred in inspecting and analyzing such adulterated articles of which said person may have been found guilty of manufacturing, selling or offering for sale.

KEEP UP THE GOOD WORK.

It is high time that the Republican leaders in Congress, and especially in the House, began to think of the question of economizing in public expenditures. Facing a deficit of \$35,000,000, and with the possibility of making it \$50,000,000 before the close of the fiscal year, Congress should cut out every expenditure that it possibly can. Otherwise what answer shall we be able to make in the presidential campaign to the Democratic accusation, which we are hearing already, of our needless extravagance? We do not wish to be put on the defensive. The light has begun to break in on Congress we infer from the ruling made by Mr. Foster, of Vermont, in the speaker's chair, against the generous item which has been added to the agricultural appropriation every year of late, to enable Dr. Wiley to further investigate the effects of cold storage upon the healthfulness of foods. We have had Dr. Wiley's health squad exploited to the limit. Dr. Wiley has had all the notoriety out of this sort of business that the public treasury should stand for. If he wants any more of it let him pay for his own advertising. We are believers in the pure food law. It is one of the best measures any Congress has passed, but that is no reason why it should be made a source of opportunity for Dr. Wiley to exploit his vagaries at public expense. Dr. Wiley's spokesman in the House was Mr. Mann, of Illinois, who dwelt at length upon the impureness of cold-storage foods. He received a decided setback from Mr. Perkins, of New York, who declared that he was hale and hearty at fifty, had never had a sick day in his life, and was not terrified by the thought that he might have been devouring, day by day, cold-storage foods for half a century. It is too bad that when the acting speaker ruled out the Wiley item he could not have ruled out the doctor too, but the American people are patient as well as long-suffering. Some day the Secretary of Agriculture will begin to reflect on the pertinence of this statement. Dr. Wiley and all his fantastic and erratic notions should go!—Leslie's Weekly, April 16, 1908.

California Pure Food and Drug Laws.

The people of the State of California, represented in senate and assembly, do enact as follows:

CHAPTER 181.

An act for preventing the manufacture, sale or transportation of adulterated, mislabeled or misbranded foods and liquors and regulating the traffic therein, providing penalties, establishing a state laboratory for foods, liquors and drugs and making an appropriation therefor.

[Approved March 11, 1907.]

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1. The manufacture, production, preparation, compounding, packing, selling, offering for sale or keeping for sale within the State of California, or the introduction into this state from any other state, territory, or the District of Columbia, or from any foreign country, of any article of food or liquor which is adulterated, mislabeled or misbranded within the meaning of this act is hereby prohibited. Any person, firm, company, or corporation who shall import or receive from any other state or territory or the District of Columbia or from any foreign country, or who having so received shall deliver for pay or otherwise, or offer to deliver to any other person, any article of food or liquor adulterated, mislabeled or misbranded within the meaning of this act, or any person who shall manufacture or produce, prepare or compound, or pack or sell, or offer for sale, or keep for sale, in the State of California any such adulterated, mislabeled or misbranded food, or liquor shall be guilty of a misdemeanor; provided that no article of food shall be deemed adulterated, mislabeled or misbranded within the provisions of this act, when prepared for export beyond the jurisdiction of the United States and prepared or packed according to specifications or directions of the foreign purchaser, when no substance is used in the preparation or packing thereof in conflict with the laws of the foreign country to which said article is intended to be shipped; but if such foods shall be in fact sold, or kept or offered for sale for domestic uses and consumption, then this proviso shall not exempt said article from the operation of any provisions of this act.

Section 2. The term "food" as used in this act shall include all articles used for food, drink, liquor, confectionery or condiment by man or other animals, whether simple, mixed, or compound.

Section 3. The standard of purity of food and liquor shall be that proclaimed by the Secretary of the United States Department of Agriculture.

Section 4. Foods shall be deemed adulterated within the meaning of this act, in any of the following cases:

First. If any substance has been mixed or packed, or mixed and packed with the food so as to reduce or lower or injuriously affect its quality, purity, strength, or food value.

Second. If any substance has been substituted wholly or in part for the article of food.

Third. If any essential or any valuable constit-

uent or ingredient of the article of food has been wholly or in part abstracted.

Fourth. If it be mixed, colored, powdered, coated or stained in any manner whereby damage or inferiority is concealed.

Fifth. If it contain any added poisonous or other added deleterious ingredient.

Sixth. If it consists in whole or in part of a filthy, decomposed or putrid animal or vegetable substance, or any portion of an animal or vegetable unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or one that has died otherwise than by slaughter; provided that an article of liquor shall not be deemed adulterated, mislabeled or misbranded if it be blended or mixed with like substances so as not to injuriously reduce or injuriously lower or injuriously affect its quality, purity or strength.

Seventh. In the case of confectionery: If it contain terra alba, barytes, talc, chrome yellow, or other mineral substance or poisonous color or flavor, or other ingredient deleterious or detrimental to health, or any vinous, malt, or spirituous liquor or compound or narcotic drug.

Section 5. That the term "misbranded" as used herein shall apply to all articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design or device regarding such articles, or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food product which is falsely branded as to the county, city and county, city, town, state, territory, District of Columbia or foreign country in which it is manufactured or produced.

Section 6. Food and liquor shall be deemed mislabeled or misbranded within the meaning of this act in any of the following cases:

First. If it be an imitation of or offered for sale under the distinctive name of another article of food.

Second. If it be labeled or branded or colored so as to deceive or mislead, or tend to deceive or mislead the purchaser, or if it be falsely labeled in any respect, or if it purport to be a foreign product tend to mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package.

Third. If in package form, and the contents are stated in terms of weight or measure, they are not

plainly and correctly stated on the outside of the package.

Fourth. If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substance contained therein, which statement, design, or device shall be false or misleading in any particular.

Fifth. When any package bears the name of the manufacturers, jobbers, or sellers, or the grade or class of the product, it must bear the name of the real manufacturers, jobbers or sellers and the true grade or class of the product, the same to be expressed in clear and distinct English words in legible type, provided, that an article of food shall not be deemed misbranded, if it be a well-known food product of a nature, quality and appearance, and so exposed to public inspection as not to deceive or mislead nor tend to deceive or mislead a purchaser, and not misbranded and not of the character included within the definitions 1 to 4 of this section.

Section 7. The term "package" as used in this act shall be construed to include any phial, bottle, jar, demijohn, carton, bag, case, can, box or barrel or any receptacle, vessel or container of whatsoever material or nature which may be used by a manufacturer, producer, jobber, packer or dealer, for inclosing any article of food.

Section 8. The possession of any adulterated, mislabeled or misbranded article of food or liquor by any manufacturer, producer, jobber, packer, or dealer in food, or broker, commission merchant, agent, employe or servant of any such manufacturer, producer, jobber, packer, or dealer shall be prima facie evidence of the violation of this act.

Section 9. For the purpose of this act there is hereby established a state laboratory for the analysis and examination of food and drugs, which shall be under the supervision of the state board of health, which laboratory shall be located at such place as the state board of health may select.

The state board of health shall appoint a director of said laboratory, and an assistant to such director, both of whom shall be skilled pharmaceutical chemists and analysis of foods and drugs. Said director shall perform all duties required by this act and which shall be required by the state board of health. The assistant shall be under the supervision of the director, and shall perform all duties required of him by the director and by the state board of health.

The director shall receive an annual salary of three thousand dollars, and the assistant shall receive an annual salary of fifteen hundred dollars. All such salaries shall be paid in the same manner and at the same time as the salaries of state officers.

The state board of health, out of the appropriation hereinafter provided, and out of the funds derived from the operation of this act, may employ and fix the compensation of other and additional clerical and professional assistants.

Section 10. The state board of health or its secretary, shall cause to be made by the said director of the state laboratory, examinations and analyses of food and liquor on sale in California, suspected of being adulterated, mislabeled or misbranded at such times and places and to such extent as said board or its secretary may determine, and may appoint such agent or agents as it may deem necessary, and the sheriffs of the respective counties of the state are hereby appointed and constituted agents for the en-

forcement of this act and any agent or sheriff shall have free access, at all reasonable hours, for the purpose of examining any place where it is suspected that any article of adulterated, mislabeled or misbranded foods exist, and such agent or sheriff upon tendering the market price of said articles, if a sale be refused, may take, from any person, firm or corporation samples of any articles suspected of being adulterated, mislabeled or misbranded, and shall deliver or forward such samples to the said director of the state laboratory for examination and analysis.

Section 11. It shall be the duty of the state board of health whenever it has satisfactory evidence of the violation of any of the provisions of this act respecting the adulteration or misbranding of foods to report such facts to the district attorney of the county where the law is violated, after the hearing provided in section sixteen of this act.

Section 12. It shall be a misdemeanor for any person to refuse to sell to any sheriff or other agent of the state board of health, any sample of food or liquor upon tender of the market price therefor, or to conceal any such food from such officer, or to withhold from him information where such food is kept or stored. Any such person so refusing to sell, or concealing such food, or withholding such information from said officer shall, upon conviction, be punished as provided in section nineteen of the Penal Code of the State of California.

Section 13. Whenever said director shall find from his examination and analysis that adulterated, mislabeled or misbranded food has been on sale in this state, he shall forthwith report to the secretary of the state board of health.

Section 14. Every certificate signed by the said director of the state laboratory shall be prima facie evidence of the facts therein stated.

Section 15. The said director of the state laboratory shall make an annual report to the state board of health, on or before August first of each year, upon adulterated or misbranded foods and liquors, in which report shall be included the list of cases examined by him in which adulterants were found, and the list of articles found, mislabeled or misbranded; and the names of the manufacturers, producers, jobbers and sellers. Said report, or any part thereof, may, in the discretion of the state board of health, be included in the report which the state board of health is already authorized by law to make to the governor. The state board of health may, in its discretion publish any part of said report in any issue of its monthly bulletin.

Section 16. When an examination or analysis of the director of the state laboratory shows that any of the provisions of this act have been violated, notice of that fact together with a copy of the certificate of the findings, shall be furnished to the party or parties from whom the sample was obtained or who executed the guaranty as provided in this act, and a date shall be fixed by the secretary of the state board of health at which said party or parties may be heard before the state board of health or before any two members thereof and the secretary. The hearing shall be held in the city of Sacramento, and at least fifteen days' notice thereof shall be first served upon the party complained of. These hearings shall be private and confined to questions of fact. Parties interested therein may appear in person or by attorney and may propound interrogatories and submit oral

or written evidence to show any fault or error in the findings made by the director of the state laboratory. If the examination or analysis be found correct, or if the party or parties fail to appear at such hearing after notice duly served as provided herein, the secretary of the state board of health shall forthwith transmit a certificate of the facts so found to the district attorney of the county in which said adulterated, mislabeled or misbranded food was found. No publication as in this act provided shall be made until after said hearing is concluded.

Section 17. It is hereby made the duty of the sheriff of any county of this state, on presentation to him of a verified complaint of the violation of any provisions of this act, at once to obtain by purchase a sample of the adulterated, mislabeled or misbranded food complained of, and divide said article into three parts, and each part shall be sealed by the sheriff with a seal provided for that purpose. If the package be less than four pounds or in volume less than two quarts, three packages of approximately the same size shall be purchased and the marks and tags upon each package noted as above. One sample shall be delivered to the party from whom procured, or to the party guaranteeing such merchandise, one sample shall be sent to the director of the state laboratory and the third sample shall be sent to and held under seal by the state board of health.

Section 18. For his services hereunder the said sheriff shall be allowed the same fees for travel allowed by law to sheriffs on service of criminal process, together with such compensation as by the board of supervisors of his county may be deemed reasonable, and all amounts expended by him in procuring and transmitting the said samples, which fees and amount expended shall be audited and allowed by the said supervisors and paid by his said county as other bills of said sheriff.

Section 19. It shall be the duty of the district attorney of each county to prosecute all violations of the provisions of this act occurring within his county.

Section 20. Any person, firm, company or corporation violating any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than twenty-five dollars, nor more than five hundred dollars, or shall be imprisoned in the county jail for a term not exceeding six months, or by both such fine and imprisonment. Food found to be adulterated, mislabeled or misbranded within the meaning of this act may, by order of any court or judge, be seized and destroyed.

Section 21. One-half of all fines collected by any court or judge, for the violations of the provisions of this act shall be paid to the state treasurer and the state treasurer shall deposit such money to the credit of the fund for the maintenance of the state laboratory, to be drawn against by warrants of the state controller upon claims which shall be approved by the state board of health and by the state board of examiners.

Section 22. No dealer shall be prosecuted under the provisions of this act, when he can establish a guaranty signed by the wholesaler, jobber, manufacturer or other party residing in the United States from whom he purchased such article to the effect, that the same is not adulterated, mislabeled or misbranded within the meaning of this act, designating it. Said guaranty to afford protection, must contain the

name and address of the party or parties making the sales of such article to said dealer, and an itemized statement showing the articles purchased; or a general guaranty may be filed with the Secretary of the United States Department of Agriculture by the manufacturer, wholesaler, jobber or other party in the United States and be given a serial number, which number shall appear on each and every package of goods sold under such guaranty with the words "Guaranteed under the food and drugs act June 30, 1906." In case the wholesaler, jobber, manufacturer or other party making such guaranty to said dealer resides without this state, and it appears from the certificate of the director of the state laboratory that such article or articles were adulterated, mislabeled or misbranded, within the meaning of this act, or the National Pure Food Act, approved June 30th, 1906, the district attorney must forthwith notify the attorney-general of the United States of such violation.

Section 23. The sum of twenty thousand dollars (\$20,000) is hereby appropriated out of any money in the state treasury not otherwise appropriated for the purchase of equipment, apparatus, chemicals and supplies of said laboratory and of the office expenses, in connection with the same and for the compensation of additional assistants and other necessary help. The state controller is hereby authorized to draw his warrants for the sums herein appropriated in favor of the secretary of the state board of health and the state treasurer is hereby directed to pay the same.

Section 24. No article of food as herein defined shall be manufactured or produced in violation of this act from and after the first day of July, nineteen hundred and seven.

Section 25. All acts and parts of acts in conflict or inconsistent with this act are hereby repealed.

Section 26. This act shall be in force and effect from and after the first day of January, nineteen hundred and eight.

CHAPTER 186.

An act for the prevention of the manufacture, sale or transportation of adulterated, mislabeled or misbranded drugs, regulating the traffic in drugs and providing penalties for violation thereof.

[Approved March 11, 1907.]

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1. The manufacture, production, preparation, compounding, packing, selling, offering for sale or keeping for sale within the State of California, or the introduction into this state from any other state, territory, or the District of Columbia, or from any foreign country, of any drug which is adulterated, mislabeled or misbranded within the meaning of this act is hereby prohibited. Any person, firm, company, or corporation who shall import or receive from any other state or territory or the District of Columbia or from any foreign country, or who having so received shall deliver for pay or otherwise, or offer to deliver to any other person, any drug adulterated, mislabeled or misbranded within the meaning of this act, or any person who shall manufacture or produce, prepare or compound, or pack or sell, or

offer for sale, or keep for sale, in the State of California, any such adulterated, mislabeled, or misbranded drug, shall be guilty of a misdemeanor; provided, that no article shall be deemed misbranded, mislabeled or adulterated within the provisions of this act when intended for export to any foreign country and prepared or packed according to the specifications or directions of the foreign purchaser when no substance is used in the preparation or packing thereof in conflict with the laws of the foreign country to which said article is intended to be shipped; but if said article shall be in fact sold or offered for sale for domestic use or consumption, then this proviso shall not exempt said article from the operation of any of the other provisions of this act.

Section 2. That the term "drug" as used in this act, shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease of either man or other animals.

Section 3. The standard of purity of drugs shall be the United States Pharmacopœia and National Formulary, and the regulations and definitions adopted for the enforcement of the food and drugs act of June 30, 1906, shall be adopted by the state board of health for the enforcement of this act.

Section 4. Drugs shall be deemed adulterated within the meaning of this act in any of the following cases:

First. If, when a drug is sold under or by a name recognized in the United States Pharmacopœia or National Formulary, it differs from the standard of strength, quality or purity, as determined by the test laid down in the United States Pharmacopœia or National Formulary official at the time of investigation; provided, that no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the package thereof although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary.

Second. If the strength or purity fall below the professed standard or quality under which it is sold.

Section 5. That the term "misbranded" as used herein shall apply to all drugs, the package or label of which shall bear any statement, design, or device, regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any drug which is falsely branded or labeled as to the county, city and county, city, town, state, territory, District of Columbia or foreign country in which it is manufactured or produced.

Section 6. Drugs shall be deemed mislabeled or misbranded under the meaning of this act in either of the following cases:

First. If it be an imitation of or offered for sale under the name of another article.

Second. If the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if the package as offered for sale at retail or wholesale, fail to bear a statement on the label of the per cent of volume of alcohol, or the quantity

of any morphine, opium, cocaine, heroin, alpha or beta, eucaïne, chloroform, cannabis indica, chloral hydrate, acetanilide, or any derivative or preparation of any such substances contained therein, except when prescribed by a licensed physician, licensed dentist, or licensed veterinary surgeon.

Section 7. The term "package" as used in this act shall be construed to include any phial, bottle, jar, demijohn, carton, bag, case, can, box, or barrel or any receptacle, vessel or container of whatsoever material or nature which may be used by a manufacturer, producer, jobber, packer or dealer, for inclosing any drug.

Section 8. The sale or offering for sale of any adulterated, mislabeled or misbranded drug by any manufacturer, producer, jobber, packer or dealer in drugs, or broker, commission merchant, agent, employe or servant of any such manufacturer, producer, jobber, packer or dealer, shall be prima facie evidence of the violation of this act.

Section 9. Whenever required by the state board of health or its secretary, examinations and analyses of drugs on sale in California suspected of being adulterated, mislabeled or misbranded, shall be made by the director of the state laboratory for the examination and analysis of foods and drugs. Said state board of health or the secretary may appoint such agent or agents as it may deem necessary for the enforcement of this act, and the sheriffs of the respective counties of the state are hereby appointed and constituted such agents. Any agent or sheriff shall have the right to purchase at the place of business of any manufacturer or dealer, any drug suspected of being adulterated, mislabeled or misbranded within the meaning of this act, tendering the market price of said articles, if a sale be refused, he may take from any person, firm or corporation samples or any articles suspected of being adulterated, mislabeled and misbranded, and shall deliver or forward such samples to the said director of the state laboratory for examination and analysis.

Section 10. It shall be the duty of the state board of health whenever it has satisfactory evidence of the violation of any of the provisions of this act respecting the adulteration, mislabeling or misbranding of drugs, to report, such facts to the district attorney of the county where the law is violated.

Section 11. It shall be a misdemeanor for any person to refuse to sell to any sheriff or other agent of the state board of health, any sample of drug upon tender of the market price therefor, or to conceal any such drug from such officer, or to withhold from him information where such drug is kept or stored. Any such person so refusing to sell, or concealing such drug, or withholding such information from said officer, shall upon conviction, be punished as provided in section nineteen of the Penal Code of the State of California.

Section 12. Whenever said director shall find from his examination and analysis that adulterated, mislabeled or misbranded drugs have been on sale in this state, he shall forthwith report to the secretary of the state board of health, and shall promptly transmit a certificate of the facts so found to the district attorney of the county in which said adulterated, mislabeled or misbranded drug was found.

Section 13. Every certificate signed by the said director of the state laboratory shall be prima facie evidence of the facts therein stated.

Section 14. The said director of the state labora-

tory shall make an annual report to the state board of health, on or before August first of each year, upon adulterated, mislabeled or misbranded drugs, in which report shall be included the list of cases examined by him in which adulterants were found, and the list of articles found mislabeled or misbranded, and the names of the manufacturers, producers, jobbers and sellers. Said report or any part thereof may in the discretion of the state board of health, be included in the report which the state board of health is already authorized by law to make to the governor. The state board of health may, in its discretion publish any part of said report in any issue of its monthly bulletin.

Section 15. When the examination or analysis of the director of the state laboratory shows that any of the provisions of this act have been violated, notice of that fact together with a copy of the certificate of the findings, shall be furnished to the party or parties from whom the sample was obtained or who executed the guaranty as provided in this act, and a date shall be fixed by the secretary of the board of health at which time said party or parties may be heard before the state board of health or any two members thereof, and the secretary. The hearing shall be held in the city of Sacramento and at least fifteen days' notice thereof shall be first served upon the party complained of. These hearings shall be private and confined to questions of fact. The parties interested therein may appear in person or by attorneys and may propound the interrogatories and submit oral or written evidence to show any fault or error in the findings made by the director of the state laboratory. If the examination or analysis be found correct, or if the party or parties fail to appear at such hearing, after notice duly served as provided herein, the secretary of the state board of health shall forthwith transmit a certificate of the facts so found to the district attorney of the county in which said adulterated, mislabeled or misbranded drug was found. No publication thereof shall be made until after said hearing is concluded.

Section 16. It is hereby made the duty of the sheriff of any county of this state, on presentation to him of a verified complaint of the violation of any provisions of this act, at once to obtain by purchase a sample of the adulterated, mislabeled or misbranded drug complained of and divide said article into three parts, and each part shall be sealed by the sheriff with a seal provided for that purpose. If the package be less than four pounds, or in volume less than two quarts, three packages of approximately the same size shall be purchased and the marks and tags upon each package noted as above. One sample shall be delivered to the party from whom procured, or to the party guaranteeing said drug. One sample shall be sent to the director of the state laboratory, and the third sample shall be sent to and held under seal by the state board of health.

Section 17. For this services hereunder the said sheriff shall be allowed the same fees for travel allowed by law to sheriffs on service of criminal process, together with such compensation as by the board of supervisors of his county may be deemed reasonable, and all accounts expended by him in procuring and transmitting the said samples, which fees and amount expended shall be audited and allowed by the said supervisors and paid by his said county as other bills of said sheriff.

Section 18. It shall be the duty of the district attorney of each county to prosecute all violations of

the provisions of this act occurring within his county.

Section 19. Any person, firm, company or corporation violating any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than twenty-five dollars, not more than five hundred dollars, or shall be imprisoned in the county jail for a term not exceeding six months, or by both such fine and imprisonment. Drugs found to be adulterated, or misbranded within the meaning of this act may, by order of any court or judge, be seized and destroyed.

Section 20. One half of all fines collected by any court or judge for the violations of the provisions of this act shall be paid to the state treasurer and the state treasurer shall deposit such money to the credit of the fund for the maintenance of the state laboratory, to be drawn against by warrants of the state controller upon claims which shall be approved by the state board of examiners.

Section 21. No dealer shall be prosecuted under the provisions of this act, when he can establish a guaranty signed by the wholesaler, jobber, manufacturer or other party residing in the United States from whom he purchased such article to the effect, that the same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty to afford protection, must contain the name and address of the party or parties making the sales of such article to said dealer, and an itemized statement showing the articles purchased; or a general guaranty may be filed with the Secretary of the United States Department of Agriculture by the manufacturer, wholesaler, jobber or other party in the United States and be given a serial number, which number shall appear on each and every package of goods sold under such guaranty with the words "Guaranteed under the food and drugs act, June 30, 1906." In case the wholesaler, jobber, manufacturer or other party making such guaranty to said dealer resides without this state, and it appears from the certificate of the director of the state laboratory that such article or articles were adulterated or misbranded, within the meaning of this act, or the national pure food act, approved June 30, 1906, the district attorney must forthwith notify the attorney-general of the United States of such violation.

Section 22. This act shall be in force and effect and after the first day of January, nineteen hundred and eight.

Adulteration and Standards of Dairy Products.

CHAPTER 216, STATUTES OF 1907.

An act to prohibit adulteration and deception in the sale of dairy products, defining adulteration in dairy products, to establish standards of quality in dairy products and to provide for enforcing its provisions.

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1. It shall be unlawful for any person to produce, manufacture or prepare for sale, or to sell or offer for sale, or have on hand for sale, any milk, or

product of milk, that is adulterated within the meaning of this act. The word "person" as used in this act shall be construed to import both the singular and plural, as the case demands, and shall include individuals, corporations, companies, societies and associations. When construing and enforcing the provisions of this act, the act, omission or failure of any employe, officer, agent or other person, acting for or employed by any individual, corporation, company, society or association, within the scope of his employment or office, shall in every case also be deemed to be the act, omission or failure of such individual, corporation, company, society or association, as well as that of the person. The provisions of this act shall be construed to apply to hotel keepers, restaurant keepers and boarding-house keepers or any person who shall serve meals and accept money therefor. The words "product of milk" as used in this act, shall not apply to any product into which milk, or a product of milk, may enter as an ingredient or component of a food product that does not consist of milk, or milk products alone, such as pastry, confectionery and ice cream, and excepting in case of condensed milk or evaporated milk or cream in which case the provisions of this act shall apply, provided, that this section shall not be construed to prevent the use of common salt (chloride of sodium) in dairy products. Any label, printed matter, or advertising or descriptive matter appearing upon, or in connection with any package, parcel or quantity of milk or milk products when being sold, offered for sale, or having on hand for sale, and having reference to the article being sold, offered for sale, or on hand for sale, shall conform with the provisions of this act, and if it fails to conform with the provisions of this act, such article shall be deemed adulterated under this act. It shall be unlawful for any person under this act, when selling or offering for sale, or having on hand for sale, milk or any product of milk to use the words "milk," "condensed milk," "sweetened condensed milk," "condensed skimmed milk," "evaporated cream," "cream," or "butter," either verbally or printed or written on any label or printed matter used in connection with the sale, or offering for sale, or having on hand for sale, of milk or any product of milk, or upon any bill of fare used in any hotel, restaurant or other places where meals are served when the article shall not conform with the provisions of section two of this act.

Section 2. Milk and the products of milk enumerated in this section shall be deemed adulterated within the meaning of this act if it or they shall not conform with the following definitions and standards:

1. Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen (15) days before and five (5) days after calving, and contains not less than three (3.0) per cent of milk fat, and not less than eight and five-tenths (8.5) per cent of solids—not fat.

2. Skim milk is milk from which a part or all the cream has been removed and contains not less than nine and twenty-five hundredths (9.25) per cent of milk solids.

3. Condensed milk or evaporated milk, is milk from from which a considerable portion of water has been evaporated and contains not less than twenty-eight (28) per cent of milk solids of which not less than twenty-seven and five tenths (27.5) per cent is milk fat.

4. Sweetened condensed milk is milk from which a considerable portion of water has been evaporated and to which sugar (sucrose) has been added, and contains not less than twenty-eight (28) per cent of milk solids of which not less than twenty-seven and five tenths (27.5) per cent is milk fat.

5. Condensed skim milk is skim milk from which a considerable portion of water has been evaporated.

6. Cream is that portion of milk, rich in milk fat which rises to the surface of milk on standing, or is separated from it by centrifugal force, is fresh and clean and contains not less than eighteen (18) per cent of milk fat.

7. Evaporated cream, clotted cream, is cream from which a considerable portion of water has been evaporated.

8. Milk fat, butter fat, is the fat of milk and has a Reichert-Meissel number not less than .905 (40 degrees C.).

9. Butter is the clean, non-rancid product made by gathering in any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt, and contains not less than 80 per cent of milk fat.

Section 3. It shall be the duty of the state dairy bureau, now existing under the laws of this state, to enforce the provisions of this act; provided, that nothing in this act shall be construed to prevent any city or county board of health or other city or county official from enforcing the provisions of this act.

Section 4. Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than twenty-five (\$25.00) dollars, nor more than two hundred (\$200.00) dollars, or by imprisonment in the county jail for not less than ten nor more than sixty days. Provided that no conviction shall be had where a conviction is sought upon any alleged sample of milk, or product of milk, unless such sample has been taken in duplicate, sealed and marked for identification, and one of such samples left with the person accused. All fines collected under this act shall be paid to the state dairy bureau when the complaint is made through the state dairy bureau and the state dairy bureau shall pay the same to the state treasurer and the amount paid by the state dairy bureau to the state treasurer is hereby appropriated to the use of the state dairy bureau in enforcing this act for the fiscal year in which the amount was paid to the state treasurer.

Section 5. It shall be unlawful for any person to prevent or interfere with the duly authorized inspectors or agents of the state dairy bureau, or any city or county board of health, from entering any place or premises where milk or products of milk are produced or manufactured or prepared or to prevent or interfere with such inspectors or agents in the event they deem it advisable to secure samples of milk or milk products from any person producing or selling milk or products of milk for the purpose of analyzing the same to ascertain whether this act is being violated.

Section 6. It shall be the duty of the district attorney, upon application of the state dairy bureau or any city or county board of health to attend to the prosecution, in the name of the people, of any complaint entered for violation of any of the provisions of this act within his district.

Section 7. All acts, or parts of acts, inconsistent with this act are hereby repealed.

Section 8. This act shall take effect and be in force sixty days after its passage.

Chemical Preservatives in Dairy Products.

CHAPTER 520, STATUTES OF 1907.

An act to prohibit the use of chemicals and other materials in milk and milk products to prevent fermentation therein.

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1. It shall be unlawful for any person to produce, manufacture or prepare for sale, or to sell, or to offer for sale, or have on hand for sale, any milk or product of milk to which has been added, or that may contain, any compound of boron, salicylic acid, formaldehyde or other chemical or substance for the purpose of preventing or delaying fermentation. It shall be unlawful for any person to produce, manufacture or prepare for sale, or to sell, or to offer for sale, or have on hand for sale, any milk, cream or condensed milk to which any coloring matter has been added by any person or to which any gelatin or other substance has been added by any person to increase the consistency of such milk, cream or condensed milk, so as make such milk, cream or condensed milk appear richer or to better quality; provided, that this section shall not be construed to prohibit the use of harmless coloring matter and common salt (chloride of sodium) in butter and cheese. The word "person" as used in this act shall be construed to import both the singular and plural, as the case demands, and shall include individuals, corporations, companies, societies and associations. When construing and enforcing the provisions of this act, the act, omission or failure of any employe, officer, agent or other person, acting for or employed by any individual, corporation, company, society or association, within the scope of his employment or office, shall in every case also be deemed to be the act, omission or failure of such individual, corporation, company, society or association, as well as that of the person. The provisions of this act shall be construed to apply to hotel keepers, restaurant keepers and boarding-house keepers, or to any other person who shall serve meals and accept money therefor.

Section 2. It shall be the duty of the state dairy bureau, now existing under the laws of this state, to enforce the provisions of this act; provided, that nothing in this act shall be construed to prevent any city or county board of health or other city or county officials from enforcing the provisions of this act.

Section 3. Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than twenty-five dollars (\$25.00) nor more than two hundred dollars (\$200.00) or by imprisonment in the county jail for not less than ten days nor more than sixty days; provided that no conviction shall be

had when a conviction is sought upon any alleged sample of milk, or product of milk, unless such sample has been taken in duplicate, sealed, and marked for identification, and one of such samples left with the person accused. All fines collected under this act shall be paid to the state dairy bureau when the complaint is made through the state dairy bureau and the state dairy bureau shall pay the same to the state treasurer and the amount paid by the state dairy bureau to the state treasurer is hereby appropriated to the use of the state dairy bureau for the fiscal year in which the amount is paid to the state treasurer.

Section 4. It shall be unlawful for any person to prevent or interfere with the duly authorized inspectors or agents of the state dairy bureau, or any city or county board of health, from entering any place or premises where milk or products of milk are produced or manufactured, or prepared, or to prevent or interfere with such inspectors or agents, in the event they deem it advisable to secure samples of milk or milk products from any person producing or selling milk or products of milk for the purpose of analyzing the same to ascertain whether this act is being violated.

Section 5. It shall be the duty of the district attorney, upon application by the state dairy bureau or by any city or county board of health to attend to the prosecution, in the name of the people, of any complaint entered for the violation of any of the provisions of this act within his district.

Section 6. All acts, or parts of acts, inconsistent with this act are hereby repealed.

Section 7. This act shall take effect and be in force sixty days after its passage.

CANDY AND TEETH.

Dr. Charles A. Brackett, of Boston, ought to be in high favor with all the candy men of Boston, for he has lately given utterance to his views on the eating of confectionery as regards its effects on teeth.

Dr. Brackett was one of the lecturers at the course being conducted at the Harvard Medical School on Saturday evenings, all of the lectures being on topics directly allied to good health of the masses.

In his lecture on "The Development and Maintenance of Good Teeth," Dr. Brackett spoke particularly of two fallacies in regard to the teeth; first that eating confectionery is particularly conducive to decay, and, second, that decay is due originally to a want of hardness in the teeth. He said that the evil of candy eating on the teeth is much exaggerated, a reasonable amount of sugar being needed in the system for the production of heat, especially in cold weather and for hard working people. He commended the action of Queen Victoria in sending large quantities of chocolates to her soldiers in remote places, thereby affording them an element of diet that they needed.

That teeth that last the longest are necessarily harder than those that decay the soonest does not follow, and the reverse is often true, he held. The real reason for decay of the teeth is acids in the mouth caused by debris of food that may rest there and become fermented by the micro-organisms that are always in the mouth. The only sure prevention of decay is the most perfect cleanliness of the mouth, particularly at night when the opportunity for the microbes to carry on their disintegrating work is much longer than between meals in the daytime.

FEDERAL AND STATE CONTROL OF WHAT WE EAT AND DRINK.

BY PROF. A. H. WHEATON.

(Continued from April issue.)

The Post says:

"Chicago sausage makers have secured an injunction in Michigan against the food department of that state, which threatened to arrest any person detected in selling the Chicago sausages. The Michigan department, it appears, attempted to define what is and what is not sausage. In the course of its floundering and wallowing in that morass of doubt and suspicion it declared that the Chicago sausage was adulterated. The Chicago sausage maker promptly proved that the United States pure food authorities had decided that whatever was in the sausages belonged there and was not an adulterant. In this case water and cereals were found in the sausages, and the federal authorities had decided that they were proper ingredients. So the Michigan food department has been compelled to stand back and permit a hungry populace to perform its ancient rites."

This is a good and wholesome lesson to the Michigan food sharps. It ought to serve as a warning to all other persons who undertake the preposterous task of trying to ascertain what is in a sausage. By what moral right does a petty uniformed understrapper in Michigan presume to violate the sanctity of sausage? Does he think that his badge and his official cap entitle him to lay rude hands upon the ceremonies of a people's faith with intent to unwrap, unfold, husk, tear off, and betray the contents thereof? Is nothing to be safe from the rude and grimy hand of officialdom? Is this Russia, that we are no longer to revel in the mystery of sausage? This espionage is an intolerable affront. It is well that in one state, at least, the bespangled minions of the law have received a setback from a higher power.

But it is not only the impudence of the food authorities that offends. It is the palpable futility of their efforts that sharpens the point of their offense. Have the Michigan officials no sense at all? Cannot they see that the federal authorities have abandoned the field after a struggle with Chicago sausage? They, too, were once enthusiastic and confident. They sought to know when a sausage was adulterated. But they know better now. They have discovered the great, paramount truth that a sausage is a sausage, and that whatever is in it, is part and parcel of it. Let this fact sink deeply into the consciousness of every pure food official in the land. Let it be understood, once for all, that there are secrets that never can, and never should be laid bare.

These remarks were called forth by the fact, that after the judge had decided that a sausage was chopped meat seasoned to taste; then the pure food commissioner published a statement that he would prosecute all persons, selling sausages that did not comply with this definition or that contained cereals and water besides meat, under the law. The Chicago sausage venders succeeded in getting an injunction restraining him from publishing this circular, until the case was decided by a higher court. This is potent at this time and place, because largely all over this state, a product called "Bull Meal" is being sold to butchers everywhere, for the purpose of enforcing sausages. As I understand it, it is a cereal product produced from cornmeal, and although our law

specifically states, and the National law as well, that there shall not be added to any food product, any substance which may cheapen the product or make it appear what it is not, and if it is so labeled, it is adulterated and is subject to prosecution under the law. Prosecutions have not been instituted in this state on sausages, because your food and dairy commissioner has recently learned that a very small technicality or a very small omission in the reading of the law, means defeat to the object sought, and for the further reason that while the State of Michigan is prosecuting this case, I considered it wisdom to wait until a decision is handed down from the court of last resort.

To show further the opinions of the strongest man who ever sat in the President's chair, I quote from Theodore Roosevelt on the food and drugs act in his message to the sixtieth Congress. He says: Those who fear, from any reason, the extension of federal activity will do well to study the history not only of the national banking act, but of the pure food law, and notably the meat inspection law recently enacted. The pure food law was opposed so violently that its passage was delayed for a decade; yet it has worked unmixed and immediate good. The meat inspection law was even more violently assailed; and the same men who now denounce the attitude of the national government in seeking to oversee and control the workings of interstate common carriers and business concerns then asserted that we were "discrediting and ruining a great American industry." Two years have now elapsed and already it has become evident that the great benefit the law confers upon the public is accompanied by an equal benefit to the reputable packing establishments. The latter are better off under the law than they were without it. The benefit to interstate common carriers and business concerns from the legislation I advocate would be equally marked.

STATE AND FEDERAL CO-OPERATION.

Incidentally, in the passage of the pure food law the action of the various state food and dairy commissioners showed in striking fashion how much good for the whole people results from a hearty co-operative reform. It is primarily to the action of these state commissioners that we owe the enactment and enforcement of state laws on the subject, and then the enactment of the federal law, without which the state laws were largely ineffective. There must be the closest co-operation between the national and state governments in administering these laws.

As a matter of fact, since my appointment as Food and Dairy Commissioner of the State of South Dakota, I have received and answered hundreds and I believe thousands of letters from men who were preparing and packing food products and shipping them into our state, who, when their attention has been called to some preservative or some adulteration, which I have believed to be not only illegal, but unnecessary, they have invariably said that to put these products up, and have them keep, without a preservative of some kind, was absolutely and unqualifiedly "impossible." These kinds of products have eventually narrowed down to perhaps five or six, namely; Bulk Sweet Pickles, which contain, usually, alum and benzoate of soda; Codfish put up in brick form with from .1 to .4 of 1 per cent of benzoate of soda as a preservative; Catsup with .1 of 1 per cent

of benzoate of soda to keep it from fermenting after it is opened and exposed to the air; Sweet Cider with benzoate of soda in it to keep it from fermenting.

All of the time I have been satisfied that .1 of 1 per cent of benzoate of soda will not prevent anything from fermentation, because to insure a product from fermentation the preservative must be strong enough to kill the bacterial germs or cells, that by multiplication cause fermentation, .1 of 1 per cent of benzoate of soda will not accomplish the result, and if the goods so preserved will stand up and keep, then it naturally follows that they will keep without any preservative. I was more than gratified on February 8th, 1908, to receive a splendid letter from one of the largest packing houses in the United States, and while it is not diplomatic to give names or places, I am going to read you this letter. Recently others in the same business, when they found that they could not do business in South Dakota with these preservatives in their goods, have employed men who have expressed their willingness to try to put up food stuffs without these preservatives, and I am happy to state that they are succeeding in doing it.

February 8, 1908.

Hon. A. H. Wheaton,

Food Commissioner,

Brookings, South Dakota.

Dear Sir:

We are in receipt of your letter of January 27th, and have much pleasure in assuring you, in response to your inquiry, that the question of putting up bulk pickles, either sweet or sour, without a preservative has ceased to be a matter of opinion. We have positive knowledge born of our own experience, which has covered a sufficient period of time to demonstrate the matter fully, that neither alum nor any preservatives are at all necessary in pickle products. We discontinued the use of benzoate of soda in sweet pickles in glass eight years ago. In our bulk sour pickles, in which no benzoate of soda was ever used, alum was finally and entirely discarded November 1st, 1906; and alum and benzoate of soda in our sweet pickles May 1st, 1907; and we find that our losses by spoilage during the year 1907 were no larger than during any previous year, although our pack was very heavy—thus we feel that we have fully demonstrated the satisfactory keeping qualities of bulk sweet pickles that are pure.

We wish to take occasion to say in this connection that we have demonstrated to our own satisfaction that artificial preservatives are not only not necessary in any product made from fruits and vegetables, but that spoilage is less frequent by the new and more accurate and reliable methods that must be employed when preservatives are eliminated. However, it is a fact that not only must careful, painstaking methods be employed, but no waste products or partly spoiled raw materials can be used. We agree that it is impossible to produce ketchup for instance, and have it keep without a preservative if its source is cannery waste. Moreover, salt pickles which are partly decayed and spoiled, cannot longer be made hard and given a good appearance when worked up into either sweet or sour pickles if the use of alum is eliminated, and what applies to these two products will apply to many more.

Thus, by doing away with preservatives the food producing industry accomplishes two important results: First, the closer inspection of processes which

tends to make the finished product more uniform and of a quality so superior as to far excel articles made under old conditions by haphazard methods—second, the doing away with all unwholesome raw materials; and these we think will be regarded as decided steps in advance.

I predict that it is only a matter of a short time, perhaps one to three years, when every reputable manufacturer and packer in the United States will declare, as do some of the best at present, that preservatives are entirely unnecessary, if care is taken in the selection of the products put up. The South Dakota pure food law does not allow any preservative, whatever, in foods or drinks, and so far as possible, your commissioner is adhering strictly to the law. The only difficulty experienced is, that the appropriation allowed by the last legislature was not large enough to employ sufficient force to properly police the state. It would afford no pleasure to the commissioner to prosecute retail dealers and let the wholesaler or manufacturer go scot-free. Because of lack of jurisdiction, therefore, I have recently taken steps which will ultimately lead to a perfect co-operation between the federal authorities at Washington and the commissioner of your state, and when this scheme is worked out, I believe that wherever I may find goods improperly labeled or goods that do not comply with the National law, I will be enabled to take samples and report direct to the authorities at Washington, and have these parties brought on the carpet and show cause why their business should not be wound up by a round turn, and the goods of other worthy manufacturers sold in their stead.

In commenting on the regulations of food products, which includes drinks of all kinds, we frequently hear people say that a little benzoate of soda, or a little alum, or a little boracic acid, or something of that kind in a perishable product, that the amount that an individual might eat of it at one time would do no great harm. From the research and study that I have given this matter, I most emphatically disagree with this opinion. I have known a child to go into convulsions from sucking a lump of alum. Dr. Wiley's "poison squad" demonstrates clearly the influence of such preservatives on the kidneys. If they are strong enough to kill bacteria, they are certainly strong enough to kill the enzymes of the stomach, and if that be true, the constant indulgence by any man no matter how strong he may be, will eventually either destroy or injure the digestive tract, the kidneys and liver and reduce and lower the vitality of the subject who unwittingly takes his poison by the boarding house route. Thus one can readily see that if these organs became injured to any appreciable extent, it means injury, weakness, and inability to throw off disease and finally is liable to succumb to some disease prevalent in the community that he may pass through. This is not sentiment, but it is a fact, that every man should regard with alarm and misgiving, and should fortify himself against it if he expects to live his allotted three score and ten.

The friends of the laws enacted, and the commissioners who seek to enforce them, are some of the largest and best manufacturers in the land. The enemies of the laws and the commissioners who enforce them, are the rectifiers, the blenders, the compounders, and the adulterators, who seek, as one commissioner said, by "cunning ingenuity" to blind the "eyes" of the consuming public and place labels

upon their goods, so nearly in compliance with the laws and rulings that it takes a final analysis to decide whether to condemn or accept them as genuine. If it is important to protect our wives and children, and ourselves if you please, from the spurious compounds in our food products, what shall we say of our drugs and proprietary medicines, which are designed to cure all our ills? In this connection I wish to quote from a recent treasury department ruling, under the head of Internal Revenue Decision 1281. List of alcoholic medicinal preparations for the sale of which special tax is required. Int. Rev. Circular 713. Treasury Department, Office of Commissioner of Internal Revenue, Washington, D. C., December 3, 1907. To Collectors of Internal Revenue and Revenue Agents: For your guidance is published the subjoined list of alcoholic medicinal preparations, which have been analyzed by this office and classed as compound liquors under the ruling in T. D. 1251, and for sales of which the special tax of liquor dealer is required.

It must be clearly understood, however, that the list here given is not inclusive, and does not purport to give the names of all the preparations for the sale of which special tax is or may be required, but embraces only those which have been analyzed by this office and held to be insufficiently medicated to render them unsuitable for use as a beverage. The names of a number of preparations which have been held in previous rulings and letters to be suitable for such use, the manufacture of which has been discontinued or the formulas so modified as to change their classification, are omitted. For the sale, subsequent to January 1, 1908, of any of the preparations here given, or of any other preparations which do not come within the requirements of the law as to medication, as interpreted in T. D. 1251, special tax will be required, even though such sale is made in good faith for medicinal purposes. The names of such additional preparations as are analyzed and classed with those here given will be published from time to time in treasury decisions, and whenever the number justifies, also as a circular.

The question of the proper classification of the various malt extracts now on the market is still under consideration, and the conclusion, when reached, will be announced in a later circular. Collectors are directed to place a copy of this circular in the hands of every druggist in their districts who has not already paid special tax as retail liquor dealer.

Angostura Aromatic Tincture Bitters.
Aroma Stomach Bitters.
Atwood's La Grippe Specific.
Augauer Bitters.
Augauer Kidney-Aid.
Belvedere Stomach Bitters.
Bonekamp Stomach Bitters.
Boonekamp Bitters.
Brown's Aromatic Cordial Bitters.
Brown's Vina Nerva Tonic.
Botanic Bitters.
Cinchona Bitters.
Clifford's Cherry Cure.
Cuba Gingeric.
Cooper's Nerve Tonic.
Dandelion Bitters.
De Witt's Stomach Bitters.
Dick's Nutritive Elixir.
Dr. Dade's Blackberry Cordial.
Dr. Boumier's Buchu Gin.

Dr. Fowler's Meat and Malt.
Dr. Gray's Tonic Bitters.
Dr. Hortenbach's Stomach Bitters.
Dr. Worme's Gesundheit Bitters.
Dr. Rattinger's Bitters.
Ducro's Alimentary Elixir.
Gilbert's Rejuvenating Iron and Herb Juice.
Ginger Tonic.
Ginseng Cordial.
Green's Chill Tonic.
Harrison's Quinine Tonic.
Jerome's Dandelion Stomach Bitters.
Jones' Stomach Bitters.
Juni-Kola.
K. K. K.
Katarno.
Kudros.
Lemon Ginger.
Laxa Bark Tonic.
Magen Bitters.
Meta Multa.
Obermueller's Bitters.
Old Dr. Scroggin's Bitters.
Panama Bitters.
Rockandy Cough Cure.
Royal Pepsin Tonic.
Sheetz Bitter Cordial.
Smith's Bitters.
U-Go.
Uncle Josh's Dyspepsia Cure.
Warner's Stomach Bitters.
Westphalia Stomach Bitters.
William's Kidney Relief.

JOHN G. CAPERS,
Commissioner.

The drug act passed last winter in this state has been decided by the Supreme Court to be of no force and effect, but I wish to say that but for the absence of two words in one section and the letter "s" in another section, we would now be protected from some of these things called proprietary or patent medicines, which to my mind is just a ruse by which booze is sold under the guise of patent medicine.

In conclusion I wish to quote a little stanza entitled "Starvation," a plea to Dr. Wiley, which speaks for itself, and is another way of laughing your case out of court:

What are these awful food laws
That are being passed, about
Adulteration and misbranding?
Is the universal shout.

Don't eat tomato catsup
If you do not want to die,
For the benzoate of soda
Puts your insides all awry.

A maraschino cherry
May be classed with "Rough on Rats,"
For the coal tar dye that's in it
Will permeate your slats.

If for dried fruit you are longing
Do not dare to take a bit!
For the sulphurous dioxid
Will produce an awful fit.

If it's fish you would be eating,
Eschew the Worcestershire,
For the salicylic acid
Will keep you sick a year.

Sweet oil, extract of lemon,
Cream of tartar and the like,
If used for food in these days
Do naught but shorten life.

And with all the deadly mixtures
Dr. Wiley talks about,
Wines, beers, porter, whisky,
Ale and English stout.

Milk, cream, butter, coffee,
Maple syrup and the rest,
There's little left but shavings,
Which we fear will not digest.

Oh! Doctor, we are starving!
Can't you tell us what to eat?
Surely you don't live on nothing,
For they say you're fat and sleek.

If you'd only pass a health law
That would tell us how to thrive,
Say a Roosevelt-Wiley health law,
To include "race suicide."

Get it through this present Congress
And I'm sure we'll affirm,
By our vote on next November,
That we favor a thiry term.

—A. Pliant in American Grocer.
A. H. WHEATON.

NO MORE CANDY ON TRAINS.

Passengers on the trains of the New York, New Haven & Hartford Railroad to and from Boston are to be denied the privilege of buying candies while traveling, unless they alight from the cars at stations where stops are made long enough to permit their doing this. The railroad company recently has decided to forbid boys from peddling sweets and fruits through the cars and has issued an order to that effect, thus curtailing the boys' privileges and those which passengers have enjoyed from time immemorial. No more candies, peanuts, oranges and other fruits can be bought, therefore, in the future, except when a train is at a standstill in some station long enough to allow the young peddlers to go through the train with their wares; but not while the train is speeding along. Newspapers, magazines and literature still can be sold. Passengers have registered so many complaints of the annoyance felt in being offered candies and fruits that the road took the action it did. At the big South Terminal station in Boston the candy pagoda in the immense waiting room and the big booth in the train house, always well stocked with the goods of the various "Hub" manufacturers, will probably do a far larger business after people wake up to the new rule regarding sales on trains.

CONVENTION OF THE NATIONAL WHOLESALE LIQUOR DEALERS.

The thirteenth annual convention of the National Wholesale Liquor Dealers' Association will be held at the International and Cataract Hotels, Niagara Falls, N. Y., on Tuesday, Wednesday and Thursday, June 16, 17 and 18, 1908.

HOW TO SOLVE THE PROBLEM OF PURE MILK FOR OUR CITIES.

BY J. A. WESENER, PH. C., M. D.

(Continued from April issue.)

In this same connection it might be well to call attention to the fact that eventually there will be a milk trust in all large cities. Such a trust, however, will not be formed or come about by any of the so-called common trust methods, but will come into existence through the agitation of the state and municipal boards of health. We insist on pure milk for our people and it costs money, and takes a great organization to produce pure milk. Therefore, the company which lives up to these sanitary requirements and these laws and ordinances demanded by the respective health boards will become the trust in spite of themselves, and every night they put their head on the pillow and wake up the next morning they are just one day nearer to the trust consummation.

I have discussed somewhat in detail the fact that every farmer produces a pretty good grade of milk, and I do not believe it would be justified from an economical standpoint, even from the question of purity of the product, to demand much more from this average farmer. The further efforts for purity should be directed to the milkman. I mean that the milk which is received at the factory should be put through a process of purification.

The plan which I would advocate, and which to my mind would give pure and wholesome milk to our cities, is pasteurization. Two general methods to bring about these results are available: First of these is plain pasteurization, wherein the milk is heated to a sufficiently high temperature to destroy the bacteria without injuring the quality of the milk. The second is to pasteurize the milk and at the same time remove a large portion of the water, and at a temperature which will not change the properties of the milk.

Before going into the particulars of these two methods I wish to first outline a short plan of controlling the farmer. Let us be just as particular with the farmer as we now are, and even a little more so. He should be taught more about scientific dairying; more about common, every-day cleanliness; he should be instructed as to how to breed good milch cows; what to feed in a ration in order to make his feed economical and thereby produce milk at a minimum cost. In this he should be assisted in every way by the milk dealer, for it is certainly money in the dealer's pocket to get a high grade product at his factory. These little lessons should be taken up with the farmer in a deliberate way so as to avoid confusing his mind by giving too many facts at one time. He is always looking for results and for that reason it would be well to start with some phase of the industry which can be shown by an actual practical demonstration; for example, economical feeding and the value of different feeding-stuffs from a milk producing standpoint.

Milk produced with the precautions as outlined is to be kept in the most hygienic and sanitary condition until delivered at the factory. Here it is to be further purified by passing through either cotton or pulp, or better still, a gravel and sand filter. The filtering material, after using, is replaced by a fresh supply or when possible cleaned and sterilized, or the milk can be purified by passing through a separator.

To consider now the methods of plain pasteurization: The milk is pasteurized at a temperature sufficiently

high to destroy all living bacteria, and as already stated, there are one or two machines that produce very excellent results. The length of time of pasteurization depends very much upon the construction of the machine. If the machine is constructed in such a manner that the milk is exposed uniformly and almost instantly to the heating influence, the time required to kill the bacteria at the proper temperature will be very short, and the time necessary therefore will vary with the degree of heat and the rapidity with which the milk can be brought to the temperature desired. If the milk can be subjected to heat when the same is in the state of a fine film, the absorption of heat by the milk will be almost instantaneous. The cooling of the heated milk should be very rapid, as it has been shown that rapid cooling of heated milk has a marked effect on the life of the bacteria. Such purified and pasteurized milk is then bottled in sterilized bottles, cased, iced, and shipped to the cities.

The second method of pasteurization wherein the milk is heated at a certain temperature for a long period and where at the same time a large amount of water is removed, is carried out as follows: The milk after cleaning either by filtration or clarification is placed in a vacuum pan, heated to a temperature of about 140 to 145 degrees and evaporated until reduced to about one-third or one-fourth of its original volume. The time necessary to perform this operation will depend on the amount of milk, temperature, and evaporating surface, one to two hours being usually required. With this temperature and length of treatment all pathogenic bacteria are destroyed without in any way changing the flavor of the milk. The milk can be reduced to any density desired up to one-fourth of its original volume. After the evaporation has been completed, the product is cooled by passing through a refrigerator chamber and is then collected in sterilized cans or put directly in sterilized bottles, and shipped in refrigerator cars to the city. To my mind it would be better to ship the canned product directly to the city and do the bottling there. From the time the milk leaves the separator to the time the container receives it air should not come in contact with it. Where the bottling is done in the city, the product can either be put in the concentrated form in the bottle, or where it is desired can first be restored to normal milk by diluting with sterilized water and then put in sterilized bottles. Personally I would prefer to see the concentrated product delivered direct to the consumer.

The city plant itself should be a sanitary, up-to-date building; the interior should be built of cement or tiling; all machines should be of sanitary construction so that they could be easily cleaned and sterilized. The process of restoring the concentrated product should be carried out in a closed system to which air has no access, all of which could be done automatically even to the filling of the bottles. Not one drop of milk should ever be spilt on the floor; in fact, the whole operation should be carried on with the same precision as to accuracy and cleanliness as is carried out in an up-to-date operating room. Such a plant could be made very attractive and showy, all of which would be attractive and instructive to the people. I believe that the people should be shown more about how pure milk is produced, for in this way only will the standard of purity be raised when the demand comes directly from the public.

Before going into the question, What is accomplished by following out this method of cleaning and

pasteurizing milk? it would seem to be proper to first answer the query, Can this be done without increasing the selling price of milk? The answer being, Yes. The rate of freight on a can of milk depends on the length of haul, the rate being the same whether it is liquid milk or the concentrated product. The cost of evaporating and of handling and running a factory is very small, as all of the product is handled by machines. The bottling of it in the city would not cost any more than what it costs now to do the same in the country. In fact, with this plan of bottling, the cost would be materially lessened. The saving of freight is the large item and this is seen at once when it is understood that the rate of freight on four cans put into one can is about the same as the rate on one can, or, in other words, you concentrate four cans into one. These figures have been gone over very carefully and can easily be verified.

Now that it has been demonstrated that this product can be handled without increasing the operating expenses, it naturally will be seen that the selling price of the milk should remain the same. Any extra profit made should be put to good use in educating and teaching farmers to become more model dairymen.

After settling the question of the cost of milk, it will now be proper to consider the product itself. Milk which has been subjected to the above process, and which has been pasteurized from one to two hours at a temperature not higher than 145 degrees Fahrenheit, does not have a cooked taste or disagreeable flavor.

I have submitted samples of this product to some of the best experts in the country and none of them was able to distinguish between this milk and other good milk, not treated, when examined side by side. A temperature of 145 degrees Fahrenheit, when continued for a sufficient time, is high enough to render all pathogenic bacteria harmless. Repeated tests and bacteriological examinations at the Wisconsin, Illinois and other experiment stations showed that the tubercle bacilli, as well as other deleterious species of bacteria, are rendered harmless when subjected to a temperature of 140 to 150 degrees Fahrenheit for ten to thirty minutes. Naturally, therefore, one to two hours' pasteurization will make their destruction doubly assured. Plate cultures made of milk before treatment have shown as high as two to four million bacteria per cubic centimeter, and after subjecting the product to the process described, these were reduced to a few thousand, and such milk it must be remembered represented a concentration equal to one-fourth of its original volume.

The keeping properties of milk, purified by this process, is materially increased and for that reason it can be shipped long distances. Samples of this product kept on ice for two weeks remained sweet and wholesome. There is a point which I wish to emphasize with reference to milk handled in this way, namely, it will always be uniform in its composition; the percentages of fat and non-fatty solids can be made to be always the same and therefore the product is easily standardized. There is probably no one article of food which is liable to such variation in its percentage composition as the milk furnished the consumers. In fact, the variation may be so great that one consumer may pay nearly twice as much as his neighbor for the same amount of nutrients when both pay the same price for it per quart. I have made a great many fat tests on samples of milk furnished by different companies and the variation found was very wide. The analyses of

different samples of milk furnished by one company on the same day showed fat as low as 2.8 per cent and as high as 4.5 per cent.

A study of this product showed that none of its physical, chemical or physiological properties is in any way changed. The cream will rise although it will be a little slower than in untreated milk. The enzymes which are so necessary in milk have not lost their chemical properties. The proteids in this product have not in any way been changed; the proportion of one part of lactalbumen to four parts of casein being the same in this product. When treated with rennet ferment, the diluted product will curdle and show the same distinct line of separation.

Finally, it must not be forgotten that as the population of our cities increase the milk will have to be hauled from longer distances, all of which increases the perishableness of this necessary food unless some method as I have outlined is adopted.

FRENCH COURT DECIDES QUESTION OF FRAUD IN FLOUR BLEACHING.

The recent decision of the Court of Final Jurisdiction in France sustaining the Andrews Patent is interesting, in that it relates to the question of whether the invention is of value to the public at large and if its use deceives the public or is a fraudulent operation. It seems that, unlike other countries, a patent to be valid in France must not only be a new and valuable invention, but at the same time must benefit the general public. Furthermore, its use or operation must not be fraudulent.

The lower French court held that the Andrews Patent was not anticipated by any prior patent or publication; that the process of aging and whitening flour was of great value to the miller, but as the judge of this court was of the opinion that the general public was not benefited by the invention, and that its use deceived the public, he held that the patent should be revoked or annulled on that ground. The owners of the Andrews Patent appealed from this adverse feature of the decision of the lower court and carried the case up to the Court of Final Jurisdiction, where, notwithstanding the fight made against it, the patent was sustained broadly. That part of the final decision regarding the social utility of the invention reads as follows:

"Inasmuch as, in Art. 30 of the law of 1844, the legislators, in enumerating those cases in which a patent ought to be declared null and void, wisely avoided treating the particularly delicate point of investigating whether the patented invention might or might not have social utility, this last being difficult of definition and the application and usefulness of a thing, product, or machine, being subject to change according to the need of the moment, the caprices of fashion, and the evolutions of science; social utility is, furthermore, not one of the constitutive elements of what Art. 2 calls a commercial result.

"The annulment of this patent having for its object the bleaching of flour, is all the less justifiable as this process is not an adulteration and a fraudulent operation, as one of the clauses of the judgment states, as this bleaching constitutes, on the contrary, a noteworthy advancement of the industry, since it is thereby possible to give to a certain part of the flour contained in the grain of wheat a color which is more acceptable to the public, and thus to increase the quantity of that flour which, in the milling industry, is called

"first flour," is solely because it is whiter. This process is used openly and is not applicable to treating spoiled or inferior flour.

"In point of hygiene, there is no reason to fear (in view of the analysis made by chemists of the highest ability), that the infinitesimal quantity of nitrous gas taken up by the flour in the process of bleaching (which is very probably eliminated), would have any injurious influence on the health. This important question has already been investigated by hygienists, especially in Germany, England and Belgium, where no one has condemned on this score the artificial bleaching of flour. The addition to the naturally white flour found in the center of the wheat grain of that which is nearer the outer envelope, and the only fault of which is its slightly dark tint, may even be of advantage since the latter contains a larger quantity of azotic matter, as well as phosphates, of which the nutritive and health-giving qualities are very much praised by physicians at the present time.

"The court orders the confiscation and restoration to the proprietor of the Andrews plant of the apparatus seized in the possession of the millers summoned in conformity with the law of 1844."

"The court condemns the defendant to pay all costs of the suit before the court of first instance and that before the court of appeals, including the costs of the accessory appeal, and condemns the defendant to pay damages to be fixed by estimate. The court orders the publication of the present decision in ten newspapers at the choice of the proprietor of the Andrews Patent, and at the expense of the defendant, the costs of each insertion not to exceed two hundred francs."

ARE YOUR GROCERIES CLEAN?

Every one knows that the grocer contends continually with a great many uncleanly and unwholesome conditions. The very nature of the substances with which he deals has a tendency to make the store untidy. Yet, if the store is untidy and unwholesome, how can the goods which come from it be cleanly and in good condition?

One thing should always be remembered, and that is, that the dust blown about by the wind in a city street is full of bacteria and all sorts of vile contamination. If fruits and vegetables are exposed for sale on the sidewalk without covering, they must invariably accumulate a stock of filth which is not a good thing for the stomachs of human beings.

Every one recalls how such fruit and vegetables are frequently covered with a heavy layer of perceptible dust, this dust being nothing more or less than the dried offal of animals, the sweepings of houses, and all sorts of foul and unnamable filth. Fruits and vegetables should be exposed for sale only in closed receptacles.—*Iowa Health Bulletin.*

ONE LESS INSPECTOR.

Mr. Barmeier, a state milk inspector of Iowa, evidently thinking he was the whole performance and the side show, hired a chemist outside the chemist provided for under the food law, to make his analyses, and when the bill was not allowed alleges he was snubbed. Mr. Barmeier has decided to resign.

THE OLDEST FOOD LAW.

Indiana claims to have the oldest food law in the country, basing its claim on the statute of January 2, 1819, regulating the inspection of flour, beef and pork. Can any state beat that record?

THE AMERICAN FOOD JOURNAL



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PROTECTING FOOD STUFFS.

It is high time city, state and national authorities gave more attention to foodstuffs exposed to dirt, filth and disease on the public streets. Without doubt special legislation and ordinances will be required to protect the public, but something can be done under the definitions of adulteration commonly adopted and under the common law. And if further and more definite regulations are required the food commissioner and health boards ought to take the initiative in asking for them. It is not the policy of this paper to be radical, sensational or effervescent. Yet we assert it to be a fact that fruit is commonly exposed during the day in the public streets without protection and must soon be covered with the dirt of traffic and the excretion of animals, and at night shares the sleeping department of the Greek or Italian owners. Candy purchased by the innocently ignorant child keeps company with the fruit. Shelled nuts and other confections consumed without washing and therefore with all the filth gathered in a long wooing of the germ laden wind are offered as a delicacy to the public and presumably with prospects of a purchaser.

Flies, too, now known to be one of the chief carriers of contagious diseases, swarm around the fruit and sweets in summer. Sometimes green fruit is protected by a red mosquito netting, alas, not for the purpose of protecting the fruit but to mislead the guileless purchaser into thinking the fruit is red ripe.

Denver, Kansas City and St. Louis, with several smaller cities, require fruit and other foodstuffs exposed in stands on the streets to be covered with glass. This is a reasonable sanitary requirement and should be universally adopted. Rotten fruit should not be allowed on sale, and it should be an offence to sell same for the manufacture of apple stock and cider vinegar or to give it away. We have laws controlling the sale or free disposition of poisons and habit-forming drugs. Why not protect the poor and ignorant against themselves?

The contamination of foods is not confined to the street. Some of the open front stores are equally as objectionable as the fruit stands. Restaurants and soda water stands are rendezvous for flies in summer and do more than their share in scattering typhoid and similar mouth-caught diseases. The District of Columbia has an ordinance intended to diminish this evil which reads:

"Every manager of a store, market, dairy, cafe, lunch room or any other place in the District of Columbia where a food or beverage or confectionery or any similar article is manufactured or prepared for sale, stored for sale or sold, shall cause it to be screened effectually or effectually protected by a power-driven fan or fans, so as to prevent flies and other insects from obtaining access to such food, beverage, confectionery or other article, and shall keep such food, beverage, confectionery or other article free from flies and other insects at all times."

The penalty for violating the ordinance is a fine of not more than \$25 for every offense.

Whether the electrically driven fans are sufficiently effective in banishing the fly evil is open to some question, but that such an ordinance, wisely enforced, would lessen premature deaths and tend to pauperize physicians is beyond the suspicion of a doubt.

Many of the grocery and grog shops are equally open to criticism in this respect. Meat markets, as a rule, need more protection from insect invasion. Both the grocer and the butcher could often give more thoughtful care to the preservation of articles of food essentially perishable in nature. Milk, too, might be more hygienically handled, although the standard of cleanliness of this article probably surpasses that of any other foodstuff. Still many of the dairies and delicatessens are not suitable for the sale of milk, nor are the proprietors well enough posted to dispense it. In Chicago last month a most contagious disease broke out in a family conducting a delicatessen in their dwelling. By subterfuge of removal of the patients and probably some collusion with the physician, quarantine was evaded and milk sold as usual from the premises. When the Health Department itself is so lax in the enforcement of the most elementary laws of hygiene it can not be expected that the less enlightened storekeeper will voluntarily observe all the unwritten laws of sanitation and health.

The handlers of food products are being slowly educated to the importance of cleanliness. No laws or ordinances will take the place of this knowledge and the desire on the part of the dealer to do right, but laws requiring the covering of exposed foods and the elimination as far as possible of flies and similar carriers of infection would be a great blessing to humanity.

HONEY BULLETIN.

Mr. C. A. Browne reports on the analysis of over 100 samples of honey supposed to be typical of honey gathered from also all the nectar producing plants. Most of the samples were contributed by Mr. France, secretary of the National Bee Keepers' Association. The bulletin is very complete, thorough and scientific, as is characteristic of all the work of Mr. Browne. Moreover, the statements in the text as regards matters of practical apiarian experience rather than analytical knowledge, conform to the ideas of the best posted bee keepers. The microscopical portion of the investigation in charge of W. J. Young showed that none of the samples were from a single floral species, as represented. Micro photographs of the pollen of various flowers are reproduced, which should make the bulletin of value to the food analyst. Altogether, the report is too technical to be of value to any one but the food chemist for whom it was intended.

SECOND WORLD'S PURE FOOD EXPOSITION.

The second annual World's Pure Food Exposition, which will be held in the Coliseum, Chicago, November 11 to 21, has enlisted the active support of the Chicago Grocers' and Butchers' Association. In fact the exposition this year will be held by the Chicago Grocers' and Butchers' Association and the International Pure Food Exposition Company.

An executive committee, which will co-operate with the management in putting on the exposition, was elected at a recent meeting of the Chicago Grocers' and Butchers' Association as follows: Matthew Fecher, J. B. Warder, F. J. Frank, Charles R. Lott, Sol. Westerfield, O. M. Kling, Charles H. Tebbetts, Joseph M. Schanz, W. T. Bigalow, Jonas A. Johnson, Isidor Levy, James H. Carey, Mertin M. Tullberg, Henry Spitz.

It is planned to place the exposition on a much larger scale than last year. Numerous interesting special features will be arranged. An entire section of the enormous floor space will be devoted to the milk and butter exhibits and practical demonstrations of purity will be made daily. Sugar, rice, coffee, bananas and pineapples from the Hawaiian Islands and the Philippines will give spectators some idea of the products of our Pacific territory. One day will be set aside as Chicago Grocers' and Butchers' Association day, on which the management will entertain the Chicago grocers and butchers and their families.

A committee will be appointed to call upon the Chicago Association of Commerce in the near future to bring the exposition before it and urge its support in making Chicago, the food center of the United States, the scene of the greatest annual pure food exposition held in this country.

Managing Director Thos. T. Hoyne said, speaking of the prospects for this year's show, "I am very much pleased with the outlook for this year. Already we have disposed of a large portion of our floor space for exhibition purposes and inquiries are coming in daily. There is every reason why Chicago should have a great exposition of this character, and no effort will be spared in making the second annual World's Pure Food Exposition the greatest food fair ever held."

REPORT OF IOWA FOOD COMMISSIONER.

Dairy and Food Commissioner H. R. Wright of Iowa has issued a bulletin somewhat out of the usual form as regards size and dimensions but showing up the manufacturers of impure and adulterated food in good shape.

We notice that the bulletin is being well advertised by the local press, each town calling particular attention to the transgression of the food law in their particular locality. While a great many successful prosecutions have been instituted by the Iowa commissioner it is manifest that he has not abused the power the law puts into his hands by prosecuting on technicalities and has only resorted to the courts when a disposition has been shown to disregard the food law. It is this combination of firmness in the execution of the law with lenient consideration of unintentional refractions of the law that has enabled the Iowa Food Commissioner to clean up the markets of Iowa in a remarkably short time and with the support of both the Iowa wholesale and retail grocers and the Iowa people.

THE NEW YORK OLEOMARGARINE DECISION.

The decision of the Appellate Division of the Supreme Court of New York which was printed in the last number of the American Food Journal, and which we obtained on request from Assistant Commissioner of Agriculture Geo. L. Flanders, is the first important victory oleo has won in a decade. Unfortunately the decision was printed without particular caption and its importance is likely to be overlooked. It has been widely heralded that this decision invalidated the state agricultural law, at least as relating to oleomargarine. A careful perusal of the opinion will show that it does nothing of the kind. It practically confirms the opinion and decision of the judge in Wisconsin, that in order to have a violation of law it must be clearly shown that the product in question is in semblance to natural yellow butter and in imitation thereof, although the question of color was not of paramount importance, in the New York case. In other words, the mere manufacture and sale of a substitute for butter can not be prohibited, and any law framed to prohibit the sale of a substitute for butter would be unconstitutional. The judge cited previous decisions, notably that given in the case of the People vs. Marks, to support this view of the law and its limitations. The case, it may be stated, was not brought by the Department of Agriculture, but by certain oleomargarine interests who hoped to gain a decision adverse to the New York state law restricting the sale of oleomargarine.

THE HONEST FARMER.

The Pennsylvania Dairy and Food Commission, through their monthly magazine, refer to the cartoon in a late number of The American Food Journal labeled "In the Shade of the Old Apple Tree," and question whether any farmer in Pennsylvania would make cider vinegar out of inferior apples. This optimistic view of humanity, particularly the farming part of it, does credit to our contemporary. Possibly if their optimism could be stretched to include the manufacturer and tradesmen, who are also a species of human beings, they would argue themselves out of a political job for want of offenders of the food law. While most food laws may have been framed to protect class interests, under our system of laws no class can be exempted from complying with its provisions.

The point is not how could they do it, but do they do it?

ANOTHER MILK INQUISITION.

The Record-Herald, at one time a widely read daily newspaper of Chicago, has lately had made a miniature investigation of the Chicago milk supply. After the Record-Herald's skilled dairy reporters had secured almost eighty samples and had them examined by a college professor it came to the conclusion that the milk sold in Chicago was unspeakably bad. The sensation was a success. It was good for 10-point caps on the title page. But here was the dilemma of the Record-Herald. The paper was so tied up politically that it couldn't say who was at fault for the alleged horrible state of affairs. A sad case.

The comments on the "Harper" case in our last issue should have been credited to The National Druggist.

MORE RARE ELEMENT.

Prof. Richard Moore of Butler College is on a leave of absence and is working under his former instructor, Dr. William Ramsey, to discover new elements in the atmosphere. Ramsey and Travers have already found helium, neon argon, krypton and xenon. All these, of course, are present in exceedingly small quantities. Xenon is present in the proportion of 1 part to 17,000,000 of air. Any new elements if discovered will in all probability be present in still less proportion. In the present investigation they start, it is said, with 19 tons of liquid air. If they do not find any new elements they will secure a small fortune in rare gases as a consolation prize.

AN ATTRACTIVE ISSUE.

The National Food Magazine, alias What to Eat, should be called What to Drink, judging from the attention given whisky, wines, brandy, champagne, beer and cordials in the May number. Unusually attractive directions are given for the manufacture of whisky sour, hot whisky sling, whisky cocktail, gin smash, etc., etc., making the number invaluable for the bartender or the home maker.

COMMISSIONER DUNLAP RENOMINATED.

Hon. Renick W. Dunlap has been renominated for the office of dairy and food commissioner of Ohio. Mr. Dunlap has already filled the position acceptably for one term and in addition has pushed through the Ohio legislature a new and improved food law known as the Crist Bill, which is printed in this issue. Ohio and Oregon are the only states which allow the people to express their choice on a dairy and food commissioner. It is thought Mr. Dunlap will have no difficulty in being elected on his good record.

THE BENZOATE OF SODA DECISION.

Several manufacturers of food stuffs having asked our opinion as to when a decision on the "Use of Benzoate of Soda" might be expected from the new commission appointed by the President, we wrote to the chairman in regard to the matter, and are officially informed that a decision may be given the early part of next year. If the commission or committee expect to base their decision on data obtained by themselves it is difficult to understand how they will be ready to report so soon.

THE NEW CALIFORNIA FOOD LAW.

By special request of several food manufacturers we print in this issue the food laws of California which became operative the first of the year. Some of these laws were passed over a year ago, but owing to the year of grace, were not published in this journal at that time.

COMPILATION OF STATE FOOD LAWS.

The Bureau of Chemistry, U. S. Department of Agriculture, has collected the food laws of the various states and territories passed during the last two years, analyzed them and presents the results in a bulletin of two volumes. This is a statistical work of great interest and value, and we advise every manufacturer to send for a copy.

DR. WILEY'S CONFLICTING VIEWS ON ALCOHOL.

The defense of Dr. Wiley by the Journal of the American Medical Association in two of its recent issues, naturally raises the question, why such spirited efforts in behalf of a public official who is presumably doing his duty faithfully and well? If he is efficient and his work is good he needs no defense. If he is incapable and a failure, no efforts of even so great a power as the Journal of the American Medical Association can save him from a deserved oblivion. The situation would appear to be pregnant with portentous possibilities and we hope our esteemed contemporary has not been led by its zeal into committing a *faux pas*. Sometimes no prayer is so fervid as that which asks deliverance from over zealous friends and the defence of Dr. Wiley may precipitate rather than prevent the crisis in his affairs, that certain well informed individuals have anticipated for sometime.

One thing is sure, Dr. Wiley is a disappointment. He has proven to be a very ordinary man with only extraordinary ability for advertising himself and his opinions. If ever a man has worked the lay press for all it is worth, it is this same Dr. Wiley. With a keen sense of humor and a still shrewder sense of opportunity, he has played the game for all there was in it. Accuracy, scientific methods and the conservatism that the Government expects of its servants have seemingly been sacrificed for sensationalism and the spectacular. Like the proverbial moth whose short existence is generally brought to a close by some fateful flame, Dr. Wiley is to-day a victim of the lime-light. Intoxicated by its effulgent ray he has basked in it again and again. Discretion, judgment and common sense have apparently been thrown to the winds. Now, the light is fading and when it goes out as it always does, it is to be feared that it will leave a figure weak, frail and broken, more deserving perhaps of pity than of censure.

A man to be ever ready with opinions must have very great knowledge or a very faithful memory. Otherwise he is very apt to suffer the embarrassment that Dr. Wiley must feel when confronted with his conflicting opinions on the subject of alcohol.

Very recently Dr. Wiley, according to the Journal of the American Medical Association issued a signed statement as follows:

"I said that I believe the general effect of alcohol on mankind is *wholly bad; that it is bad even in small quantities; that if distilled beverages, such as whisky, brandy and rum, have any good effects, they are due to the fact that the aromatic and fragrant substances therein stimulate the digestive secretions and thus overcome, to a certain extent, the bad effect of the alcohol which they contain.* I said further, that I am in theory a prohibitionist, but that there are practical difficulties in the way of prohibition and that the better plan would be to abolish the saloons, and that if people want to drink distilled beverages they should do so quietly at their homes and with their foods, and not in saloons. *I made no reference whatever in my address to the term 'mollycoddle,' nor did I suggest or advise young men to drink liquor of any kind, but said that it was always bad.*" (Italics ours).

This is very good and very clear but the printed record of Dr. Wiley's testimony at hearings of the Committee on Agriculture is somewhat different, as follows:

On page 291 of the Reports for 1906 the following appears:

"Mr. Davis—Have you changed your views about the effect of alcohol?"

"Dr. Wiley—No, sir, not at all.

"Mr. Davis—You believe that alcohol has nutritive qualities?"

"Dr. Wiley—Alcohol has a distinct food value up to a certain limit.

"Mr. Davis—You agree with Dr. Atwater, then.

"Dr. Wiley—Yes, sir, I believe what he says on the subject is all true and correct. I made a special report to the Secretary of Agriculture, and I went over the whole thing with Dr. Atwater, and his experiments, and I think that alcohol up to 3 ounces is completely oxidized in the average human frame within twenty-four hours. *To that extent it is a food.*" (Italics ours).

On page 278 of the 1907 Reports is the following:

"Dr. Wiley . . . I think that pure spirits is a poison, *pure and simple*. It coagulates the protoplasm in the cells.

"The Chairman—You mean pure spirits?"

"Dr. Wiley—Yes, alcohol. As long as any man can keep his cells limpid and his protoplasm limpid (sic) he will never grow old. Alcohol absolutely coagulates protoplasm the moment it touches it, but the alcohol that is in a whisky or brandy or rum is so mingled by nature's operations that it is an entirely different proposition. For instance, you take the ordinary field corn and put sugar on it, more than sweet corn has, and it does not taste like sweet corn. It is not sweet corn. Nature has a way of combining the elements in foods which man cannot imitate, and therefore when nature produces 20 different substances, as she does every time a whisky is fermented, and all 20 of them come over in the still, alcohol among them, then you put these natural elements away to become mellow, to marry (as the distiller says), which takes years to accomplish—it is a long drawn out ceremony—and you make a beverage which is tonic and wholesome and healthful and non-poisonous; and there is all the difference in the world between a drink of straight alcohol and a drink of whisky, brandy, or rum." (Italics ours).

Is there an intelligent man in the world who will make the unequivocal statement that whisky is a "beverage which is tonic and wholesome and healthful and non-poisonous?"

There is no denying the necessity of Pure Food and Drug Laws, but to accomplish the results for which they are created, their interpretation and execution must be based on common sense and sound conservative judgment. Freak ideas, snap opinions, personal antipathies and ill-founded prejudices should have no place in the enforcement of such laws. Unfortunately for himself, unfortunately for many industries and unfortunately for the American people, Dr. Wiley has been invested with, or has been allowed to assume, too much power. His ideas and opinions no matter how unsound, erroneous or dogmatic, have run riot and a good useful movement has suffered accordingly. Now as his mistakes and weaknesses are being exposed, a change is taking place and one more demagogue may shortly be rumniating on the fleeting qualities of fame and earthly power.—*American Medicine.*

FARMERS AND DAIRYMEN

Desiring good help, earnest and steady men will do well by writing to the Agriculturists' Aid Society, 507 S. Marshfield Ave., Chicago, Ill.

A FABLE

Once upon a time there was a man, a good fellow, who was ambitious. He early learned the lifting power of the glad hand and by dint of judicious pats upon the shoulder and sundry other blandishments he managed to get a strangle hold on a good official job. Then the whole aspect of the world changed. The job was nothing so very wonderful and did not carry any slaves, concubines, sacred elephants nor durbars with it. Neither was the annual pay check so very large for in spite of the most assiduous coaxing it never swelled to more than a few thousand dollars.

But the job conveyed some power and a Duty spelled with a great big beautifully illuminated D.

Mr. Good Fellow became at once Mr. Authority-with-a-Duty and he saw as never before what rascals his fellow men really were. Their morals, customs, habits, methods, motives, in fact everything about them were all wrong. They were enemies to society, menace to progress, slaughterers of the innocent, grafters, parasites, liars, crooks and one or two other kinds of moral reptiles. Mr. Authority-with-a-Duty saw that he must get busy. With his Duty held conspicuously before him he raved and preached, criticised and condemned, pointed out weakness after weakness, evil after evil and showed how the jaws of hell fairly yearned for those who did not straightway get next to the call of His Particular Duty.

And then one day somebody did get next—and found out that his Duty was not only mislabeled but that it was fearfully adulterated with personal ambition, self love and political preservative. And then—somebody else got the job, and he went forth "unwept, unhonored and unsung."

Moral—Holding an official position is not a guarantee that a man is not misbranded within the meaning of the Pure Deed and Trust Act.—*American Medicine.*

NATIONAL RETAIL GROCERS COVENTION.

With the hopeful motto "Stopurkicken" the Retail Grocers of the United States moved on historic Boston to transact the business of the eleventh annual convention. On the opening day, May 11th, more than 1,200 delegates and guests had gathered together, and more continued to arrive during the progress of the convention. The convention was opened by prayer by the Rev. E. A. Horton, chaplain of the state senate.

Mr. A. L. Stark, president of the Boston Retail Grocers' Association, called the opening session to order and welcomed the visitors on behalf of the Boston grocers. "There was never a time," he said, "when we should be more united than at present. It is absolutely necessary that the grocers of our country should act together on all important questions affecting their interests, for the grocers should not be the servants of the trusts as they are to-day to a certain extent. I believe there is serious food for reflection along this line."

State Representative Robert Luce welcomed the delegates on behalf of the commonwealth, and Alderman W. D. Colton on behalf of Mayor Hubbard, and Mr. John C. Cobb on behalf of the Boston Associated Board of Trade, of which organization he is president.

Mr. W. Gray of Brooklin and Sol Westerfield of Chicago responded on behalf of the visiting delegates.

Mr. Gray said: "I have often wondered why the streets of Boston were made so narrow and crooked. I feel that I have solved the problem. It was a matter of foresight. The people of that time knew Bos-

ton would be the headquarters of the boot and shoe industry, and made the streets crooked and narrow, so that to go anywhere it would be necessary to do some walking. But how any man can do a straight business in such crooked streets is more than I can say."

Mr. Westerfield said: "Scientists tell us that human society moves in cycles, and generally returns to the place from which it started. It is therefore fitting that we should hold our convention in Boston, for it was in Boston that the first organized effort took place for the bettering of conditions in the grocery business. I refer to the Boston tea party. How could we get along without the Boston baked beans or the almost sacred cod?"

One of the most interesting of the early papers was that of Colonel E. A. Stevens on the "Food Question and Its Effect on Civilization," in which he made a plea for the better education of the grocer. Years ago Dr. Eaton addressing the Illinois Retail Grocers' Association in Aurora enumerated some of the evils of ignorance and advocated an examination and license for the grocer on the same general plan as adopted for physicians, pharmacists and even barbers, but the trade at that time could not see much more than merriment in the idea. That the thought has been growing is evidenced by Colonel Stevens' address and its reception by the association. He said in part:

"I should like to see a restriction placed on persons desiring to enter the grocery trade, not only to protect the interests of the grocers, but better to protect the health and welfare of the public at large. Such restriction would at least have an elevating tendency on the personnel of the trade. It would also radically change the character of the retail grocer's business methods. He could no longer endeavor to draw trade from his competitor by price-cutting. He must advertise and see to it that his goods are of the best quality, his store most attractive, the service most prompt and the employes the most polite and accommodating to be found anywhere.

"And why should not this be so? Why should not the grocery be one of the most attractive places on earth? The 'corner grocery, let us hope, will soon be a thing of the past. The grocery of to-day is esthetic enough to satisfy the instincts of the most refined, still our motto is 'excelsior'."

The first evening session was held in famous Faneuil Hall, where President C. J. Kramer delivered an address. The national secretary, John A. Green of Illinois, then made a verbal report to the convention, showing the growth, influence and work of the association. The chairman of the legislative committee, T. P. Sullivan of Chicago, spoke of the association being instrumental in getting most of the state food laws in conformity with the national law, and also having incorporated the guarantee clause relieving the retailer of responsibility.

Reports were received from state associations. Mr. Cook reported for Kentucky, Mr. Whitcomb for Maine. Mr. Fuller for Michigan, Mr. Lux for Minnesota, Mr. Thomas for Iowa. Mr. Thomas reported continued prosperity and success in Iowa. "We have had special success," he said, "along legislative lines. We have secured a peddlers' license law and a pure food law which, I believe, is as good as any in the country. The only thing in which we have been unsuccessful is the passage of an exemption law."

DR. WILEY SENDS A MESSAGE.

John A. Green, secretary, read a letter from Dr. H. W. Wiley of Washington, in which the food expert told how the retail grocers could help in the enforcement of the pure food law. He called attention to some of the principal provisions of this law, and said that as the retailer came into contact with both consumer and jobber and manufacturer, he could do much to see that the law was lived up to. As a specific instance of where the retailers could help in this respect, he spoke of cold storage eggs. "I believe," he said, "in cold storage, but that is no reason for selling cold storage eggs as strictly fresh. They should be sold for what they are and nothing else, as should every article of food whatever its quality or character."

MORE STATE REPORTS.

Reports were also received from S. L. Klin of Oregon, David Gerow of Massachusetts, F. Rees Woolford of Tennessee, H. I. Meader of Washington, D. C., J. B. Coningham of Nebraska, Charles Thorpe of New York, George F. Mitzer of Ohio, Mack Bergman of Texas, J. J. Crofton of Rhode Island, J. J. Higgins of Washington and Charles Wendell of Wisconsin.

The second day's convention was largely given over to a squabble between the advocates of direct dealing with the manufacturer and of those who stand by the jobber. Most of the retail grocers seem to have it in for the jobber.

The grocers in convention unqualifiedly condemn the parcels post idea of Postmaster General Meyer.

Many other interesting papers were read, which, even to enumerate, would require more room than available in this number. The subject of "Dishonest Advertising," as handled by Frank T. Longley of Arkansas, is so important and timely that a portion is herewith reproduced:

"Of all the mediums of fraud as at present practiced none is so potent for evil as advertising. Millions of dollars mulcted from the public in small individual sums is the annual record. False fire sales, deceptive bankrupt sales and other so-called sales in which misrepresentation is the 'lure,' do an incalculable amount of injury, not only to the consumer, but the retail merchant, whose scruples prevent him from resorting to such frauds. Mail order schemes, mining fakes, patent medicine frauds, quack doctor deceptions and thousands of other devices for imposing upon the credulous flourish almost without restraint."

Editor Roth of the Retailers' Journal argued against the so-called anti-substitution campaign. One sentence in his speech contained the gist of his thought:

"It is the grocer's business to know good stuff when he sees it, and other things being reasonably equal to sell the goods on which he can make money."

The following resolution was offered by Mr. Roth:

"Resolved, by the National Retail Grocers' Association in convention assembled at Boston, Mass., That we condemn the policy of those magazines which have prostituted their reading columns in furtherance of the selfish designs of certain advertisers who have sought to prejudice the public against the retail grocers of this country by means of a campaign against what they have chosen to call 'substitution'; we condemn the policy of those manufacturers who are responsible for this campaign and who seek to force their goods upon the shelves of the retail grocers by any and all means,

regardless of the margins of profit allowed for handling them.

"Resolved, That we condemn any practice or policy on the part of manufacturers of grocery products which robs the retail grocer of any part of the legitimate profit on any of the goods he handles.

"Resolved, That we cordially approve and recommend the sale of those goods of quality on which the grocer can make a proper and a living profit, regardless of whether such goods are or are not advertised in magazines of general circulation."

The convention having adopted several important resolutions, elected officers, and voted to hold the next annual convention at Portland, Ore., the eleventh annual convention closed on Thursday night with a banquet.

The following officers were elected:

President—Charles J. Kramer, Little Rock, Ark.

Vice-President—T. P. Sullivan, Chicago, Ill.

Recording Secretary—John A. Green, Cleveland, Ohio.

Treasurer—H. W. Schwab, Milwaukee, Wis.

COURT DECISIONS.

DECISION IN NORTH DAKOTA BLEACHING CASE.

The Supreme Court of the state of North Dakota has handed down a very interesting decision in favor of the millers in their case against Professor Ladd, and holds that the District Court did not exceed its jurisdiction in enjoining Professor Ladd from enforcing his order against the use of the process of aging and whitening flour.

The following are extracts from the decision of Judge Spalding, which was concurred in by the other judges:

"There must be some method to protect people and property against the unlawful execution of statutes by public officials, and we think the provision referred to was not intended to preclude an inquiry on the part of courts in a suit to enjoin, as to the legality of official acts. The contention in this case is that the food commissioner has misinterpreted the law and that the products of the millers interested do not come within the condemnation of the pure food law, and that instead of the District Court exceeding its jurisdiction, Professor Ladd is the party who is acting in excess of the authority conferred upon him by the statute. It is the property interests of the millers and others that are at stake in that proceeding. Their investments in plants and machinery are very great. Their investment in installing the process referred to amounts to many thousands of dollars, and it is clear that if prevented from making use of this process, the latter investment will be lost, and it is alleged that in that case they will be unable to sell their products in competition with the millers of this state or other countries, either in this state or elsewhere, and it is clearly evident that if this be true no computation can be made of the damages which their property will sustain.

* * *

"Most of the authorities to which our attention has been called, denying the right to an injunction, go to the ultimate question as to whether the injunction should be granted, and not to the right or the power

of the court to hear or determine an action to enjoin an officer. Minneapolis Brewing Company vs. McGilivray, 104 Fed. 258, holds that an injunction will lie to prevent the destruction of property and the ruin of business by an officer. We are of the opinion that an action instituted in the district court for an injunction, is a proper action by which to determine whether the acts of the food commission are in accordance with or in violation of law, and that that court has power and jurisdiction to entertain such an action, and if it is found that that official is, under color of law, proceeding in an unlawful manner, and is illegally condemning the products of the millers of the state, it may permanently enjoin him from so doing. It follows that the temporary writ issued by this court must be vacated and the relator's application denied. All concur.

SUPREME COURT OF THE UNITED STATES.

No. 353—October Term, 1907.

Daniel B. Scully and Maurice H.

Scully,

Appellants,

vs.

Arthur C. Bird.

} Appeal from the
Circuit Court
of the United
States for the
Eastern Dis-
trict of Michi-
gan.

[May 4, 1908.]

Mr. Justice McKenna delivered the opinion of the Court.

This is an appeal directly from the Circuit Court from a decree dismissing the bill of appellants for want of jurisdiction.

The bill sought an injunction against certain acts of the appellee, who is the dairy and food commissioner of the State of Michigan, and who, it is alleged, under cover of his office is injuriously affecting the reputation and sale of certain products manufactured by appellants. The acts complained of will be detailed more fully hereafter. It is enough to say preliminarily that appellants alleged in their bill that their business is the manufacturing, refining and selling of various food products, and more particularly the manufacturing, blending and selling of syrups used for food products; that their principal place of business is in Chicago, and that their business is "commonly recognized and known as an honorable and legitimate commercial industry and a legal and necessary adjunct to organized society;" and that they have large quantities of their products in Michigan "which prior to the acts complained of found a ready sale in that State, which sales resulted in fair and continuous profit" to them.

The court dismissed the bill, and recites in its certificate that the decree "was made and entered by the court on its own motion and without notice to any of the parties to this suit or their attorneys, except that the question of jurisdiction was argued on the motion for preliminary injunction, it appearing to the court from the face of the bill that this suit is, in effect, a suit against the State of Michigan within the meaning of the Eleventh Amendment to the Constitution of the United States, and that, therefore, this suit does not really and substantially involve a dispute or controversy properly within the jurisdiction of a Federal court."

The court expressed its reason for its action in an opinion as follows:

"Upon examination of the authorities cited upon the

arguments had in this cause upon the matters above related, it is clear that the case of *Arbuckle v. Blackburn, Dairy and Food Commissioner of Ohio*, 113 F. R. 616 (C. C. A.), is conclusive against the jurisdiction of a court of equity over the matters set forth in the bill. It is argued in behalf of complainants that the case at bar is differentiated from that decision of the Court of Appeals in the case just cited. It is not perceived that there is any substantial difference in the facts of the two cases which would exclude the application of *Arbuckle v. Blackburn*. That case is conclusive that this court has no jurisdiction to entertain a suit of this nature, and the only order which can be made in this case, notwithstanding the entry of the order *pro confesso*, is one for a dismissal of the bill for want of jurisdiction."

Arbuckle v. Blackburn was appealed to this court but the appeal was dismissed, on the ground that the jurisdiction of the Circuit Court was "dependent entirely upon the opposite parties to the suit or controversy being . . . citizens of different States," and the decree of the Circuit Court of Appeals was final." The questions passed on by the latter court were not considered or decided. 191 U. S. 405.

The Attorney General of the State, who appears as counsel for the appellee, does not contend that this is a suit against the State. He says: "Council for defendant did not claim in the Circuit Court, and do not now claim, that this proceeding is a suit against the State. It is our contention that under the decision of the Circuit Court of Appeals in the case of *Arbuckle v. Blackburn, supra*, a Federal Court of equity has no jurisdiction of the subject matter of the bill of complaint, viz., that it has no jurisdiction to restrain the dairy and food commissioner of a State from issuing bulletins or circulars claiming that an article of food is in violation of the criminal laws of a State."

And it is urged that such was the reason given by the court in its opinion and order dismissing the bill, and that as the decision of the court was right it should not be reversed, because the reason given for it in the certificate was not the correct reason. But we cannot assume that there is inconsistency between the opinion and order of the court and its certificate. We, therefore, accept the latter as expressing the ground of the court's action. We would have no jurisdiction on this appeal unless the jurisdiction of the Circuit Court was in question as a Federal court; and whether the bill presented a case for equitable relief does not present a question of the jurisdiction of the court as a court of the United States. *Blythe v. Hinckley*, 173 U. S., 501; *Illinois Central R. R. Co. v. Adams*, 180 U. S. 28, 35. Indeed, it is urged by appellant that whether a suit is one against a State is not a question of jurisdiction, but a question on the merits, and *Illinois Central R. R. Co. v. Adams, supra*, is cited.

That suit was brought by the railroad company against Adams, who was a revenue agent of the State of Mississippi, and the railroad commission of the State, to enjoin the latter from certifying an assessment for taxes on a railroad in which the Illinois Central had an interest and to enjoin the revenue agent from beginning any suit or advising any of the municipalities along the line of the road to bring suit for the recovery of such taxes. The bill was dismissed for want of jurisdiction and the case was appealed to this court. One of the grounds for the dismissal was as certified, "that there was no jurisdiction in this matter because the bill was a suit against the State of Mis-

issippi and in violation of the Eleventh Amendment to the Constitution of the United States." We said, by Mr. Justice Brown, that such a question is "one which we think belongs to the merits rather than to the jurisdiction." And further: "If it were a suit directly against the State by name, it would be so palpably in violation of that amendment that the court would probably be justified in dismissing it upon motion; but the suit is not against the State, but against Adams individually, and if the requisite diversity of citizenship exist, or if the case arise under the Constitution or laws of the United States, the question whether he is so identified with the State that he is exempt from prosecution, on account of the matters set up in the particular bill, are more properly the subject of demurrer or plea than of motion to dismiss. This seems to have been the opinion of Chief Justice Marshall in *Osborn v. Bank of the United States*, 9 Wheat. 738, 858, wherein he makes the following observation: 'The State being a party to the record, and the court having jurisdiction over those who are parties on the record, the true question is not one of jurisdiction, but whether, in the exercise of its jurisdiction, the court ought to make a decree against the defendant; whether they are to be considered as having a real interest, or as being only nominal parties.' " And: "But where the suit is against an individual by name, and he desires to plead an exemption by reason of his representative character, he does not raise a question of jurisdiction in its proper sense. . . . But whether this is a question of jurisdiction or not, we think it should be raised either by demurrer to the bill or by other pleadings in the regular progress of the cause. Motions are generally appropriate only in the absence of remedies by regular pleadings and cannot be made available to settle important questions of law." Cases were cited, and it was further observed that in *Fills v. McGhee*, 172 U. S., 516, the question whether the officers proceeded against "were representatives of the State was disposed of upon answers filed."

The suit at bar has not the "palpable" evidence of being a suit against the State by being against the State by name. Do the allegations of the bill make it such?

The suit is brought against appellee, described as a citizen of Michigan, by appellants, described as citizens of Illinois. It is true it is alleged that appellee is the State dairy and food commissioner of Michigan, and that by an act of the general assembly of the State, passed the 2d of June, 1893, the office of dairy and food commissioner was created, and that it was by such act and amendatory acts made the duty of appellee as commissioner "to attend to the enforcement of all the laws of the State of Michigan against the unlawful labeling, fraud, adulteration or impurity of foods, sold, offered for sale, exposed for sale or had in possession with intent to sell in the State of Michigan," and that it is the duty of the commissioner is clearly set forth in the acts.

It is alleged that it is his duty to prosecute violators of the act. That it came to the notice of the appellants that the appellee questioned the legality of some of the food products manufactured by them and sold in Michigan, and that they represented, through their attorney, that they were manufacturers of certain brand of maple and cane syrups which they were desirous of having properly labeled, that appellee refused to accept the statement of the attorney as being made in good faith, and stated that none of the syrups manu-

factured by appellants contained any maple syrup whatever, but were mixtures of inferior syrups containing substances which produced "imitation maple flavors," and accused appellants of not being desirous of "obtaining a wise and just interpretation of the food laws of the State of Michigan," and refused to give appellants' attorney "any information as to how a brand of maple syrup and cane syrup should be properly and legally labelled under said food laws," and refused to consider how such syrups should be labeled, and insisted that he would only permit appellants' syrups "to be sold simply as 'syrup,' without any qualifying words whatever to inform purchasers of the same of the nature of such syrups." The bill sets forth efforts made by appellants to have the question of the legal labeling of their products decided by the assistant attorney general of the State, and asked the latter officer to bring a test case in the courts of Michigan or "arbitrate the question at issue." To which the assistant attorney general replied "that they did not arbitrate matters in Michigan, but that they were 'fighters.'"

It is alleged that appellants were advised by their attorney that the proper course for them to pursue would be to label their "Westmoreland" and "Triumph" brands of syrups as nearly as possible in accordance with the laws of Michigan, and in compliance with that opinion they devised labels which described the "Westmoreland" as a brand of pure maple syrup and pure rock candy syrup, and the "Triumph" as a "delicious brand" (blend) of the same syrups. And it is alleged that both brands are composed of maple syrup and cane syrup, "and no other ingredients whatever," and that rock candy syrup is the purest kind of cane syrup, and is the only cane syrup used by appellants.

It is alleged that appellants have shipped into the State of Michigan said brands of syrups labeled and branded as aforesaid, and that shortly after such shipment the appellee "assumed a hostile attitude towards all of said syrups and contended and persists in contending that the labeling upon said syrups does not comply with the laws of the State and that he and his inspectors "at once commenced a systematic crusade" against the sale of the syrups, and appellant is informed that appellee contends that "the words 'maple syrup' should not appear on any of the said labels in any manner or form whatever, even though said syrups actually contained a representative proportion of pure maple syrup." The bill contains the following paragraph:

"Your orators further represent that they are informed and believe that the said crusade, waged against their said brands of syrup by the said Arthur C. Bird and his inspectors, is not in good faith, but that the same is actuated by malice and ill will on the part of said Arthur C. Bird towards your orator, growing out of the conference between your orators' said attorney and the said Arthur C. Bird hereinbefore referred to, and that the activity of said Arthur C. Bird to prevent the sale of said brands of syrups is caused by the malicious desire on the part of Arthur C. Bird to ruin your orators' business in the State of Michigan."

It is further alleged that "the crusade against said brands of syrups" is conducted by appellee and his food inspectors, acting under his direction, by visiting all grocers, merchants and dealers in the syrups, and informing them that by selling said syrups they would subject themselves to criminal prosecution. And that it has been the custom and practice of appellees since the shipment of the syrups to the State to write numerous letters to dealers in the State, warning them that

the syrups were illegally labeled and directing them to return all such syrups to appellants, and directing such dealers to make prompt reply "as to what course they had pursued in relation to said syrups," and what action they had taken to return the same.

It is also alleged that the food inspectors, under the direction of appellee, forcibly removed appellants' brands of syrups from the shelves of dealers, against the consent of said dealers. And "that in no case, so far as your orators are informed and believe, was any sample taken of such syrups so taken from the shelves as aforesaid, nor were the said syrups sealed as required by the statutes of the State of Michigan, nor were any prosecutions ever commenced against said grocers or dealers, although ample time has elapsed since the acts complained of as aforesaid."

The bill sets forth the efforts of appellants to have appellee commence prosecution against their agents and jobbers and against grocers and dealers handling their syrups, so that they might have an opportunity of defending the legality of their syrups "in the proper courts of the State of Michigan, and in a proper manner." These efforts, it is alleged, have failed; and it is further alleged that in all the acts and doings of the appellee complained of he was and is acting as a private citizen of the State, but "under cover of his said office of dairy and food commissioner." That his powers and duties as such officer are clearly defined in the statutes to which reference is made.

The intimidating effect of the acts of appellee upon the dealers in the syrups is set out and the detriment resulting therefrom to appellants detailed.

It is manifest from this summary of the allegations of the bill that this is not a suit against the State. *Cunningham v. M. & B. Rd. Co.*, 109 U. S., 446; *Pratt Food Co. v. Bird*, 148 Mich., 626. It is not a suit, as was *Arbuckle v. Blackburn*, *supra*, to restrain a criminal prosecution. Indeed, the bill alleges that a criminal prosecution was invited by appellant and refused by appellee, and refused, it is alleged, to serve the purpose of what the bill denominates a "crusade" against the syrups of appellants, and indereliction of duties enjoined by the statutes of the State.

Decree reversed and the case remanded for further proceedings.

Mr. Justice Harlan concurs in the decree.

True copy.

Signed Test: JAMES H. MCKENNEY,
[SEAL.] Clerk Supreme Court, U. S.

Notice of Judgment No. 1.

Issued May 2, 1908.

United States Department of Agriculture

OFFICE OF THE SECRETARY
BOARD OF FOOD AND DRUG INSPECTION

NOTICE OF JUDGMENT No. 1, FOOD AND DRUGS ACT.

Misbranding of Apple Cider.

Section 4 of the Food and Drugs Act of June 30, 1906, in part provides:

"After judgment of the court, notice shall be given by publication in such manner as may be prescribed by the rules and regulations aforesaid."

Regulation 6 of the Rules and Regulations for the Enforcement of the Food and Drugs Act, made and

promulgated in conformity with Section 3 of the act, in part provides:

"(a) When a judgment of the court shall have been rendered there may be a publication of the findings of the examiner or analyst, together with the findings of the court.

"(b) This publication may be made in the form of circulars, notices, or bulletins, as the Secretary of Agriculture may direct, not less than thirty days after judgment."

In obedience to the foregoing law and regulation notice is hereby given that on the 10th day of February, 1908, in the Supreme Court of the District of Columbia, in a proceeding of libel for condemnation of one hundred and thirty-five barrels of cider, labeled and branded "Apple Cider," wherein the United States was libellant, and the Semmes-Kelly Company, a corporation, was respondent, the cause having come on for a hearing and claimants having made a default in answering, a decree for condemnation was rendered, in substance and in form as follows:

In the Supreme Court of the District of Columbia, holding a District Court.

United States, Libellant,

vs.

The Semmes-Kelly Company, a corporation.

No. 752.

District

Docket.

DECREE FOR CONDEMNATION.

On motion of Daniel W. Baker, Esquire, attorney for the libellant, and it appearing to the Court that upon the libel filed herein a warrant of arrest was duly issued and served on the 22d day of November, 1907, and that by virtue of the said warrant the Marshal has seized one hundred and thirty-five barrels, containing six thousand three hundred and sixteen gallons, more or less, of liquid branded "apple cider" and inventoried as of the value \$631.60 the said one hundred and thirty-five barrels, with contents having been in the possession of the Semmes-Kelly Company, a corporation, respondent, and now being stored in the custody of the said Marshal, and it further appearing that the Semmes-Kelly Company was duly warned to appear herein on the sixteenth day of December, 1907, and that due and legal notice and proclamation were given to all other persons having any claim, right or interest herein to appear on the said date and answer the exigencies of the said libel, and the said Semmes-Kelly Company having defaulted in filing answer to the said libel, but appearing through its attorneys Messrs. Douglas and Douglas and consenting hereto, and no objection having been signified to the Court, it is this tenth day of February, 1908.

Ordered, adjudged and decreed that the said one hundred and thirty-five barrels with contents, as aforesaid, branded "apple cider" be and they hereby are declared to be misbranded in violation of the Act of June 30, 1906, as charged in the said libel, and it is further ordered that the said one hundred and thirty-five barrels, with contents as aforesaid, branded "apple cider" be, and they hereby are condemned and ordered to be disposed of by sale of the said contents thereof as prayed for in the said libel, and provided for in the said act of June 30, 1906. It is further ordered that the proceeds of said sale, less the legal costs and charges, shall be paid into the Treasury of the United States.

It is provided, however, that upon the payment of

all the costs of the proceedings herein, including the costs of hauling, storage, watchman, and all costs incident to or contracted in these proceedings, and the execution and delivery by the said Semmes-Kelly Company, a corporation, to the libellant, of a good and sufficient bond in the penalty of \$3,000.00, conditioned that the said one hundred and thirty-five barrels, with contents branded "apple cider" as aforesaid, shall not be sold or otherwise disposed of contrary to the provisions of the said act of June 30, 1906, the said Marshal shall re-deliver the said one hundred and thirty-five barrels to the said Semmes-Kelly Company, a corporation, in lieu of disposing of them by sale as aforesaid, the said bond to be filed herein if at all, on or before the 20th day of February, 1908.

(Signed) JOB BARNARD,

Justice.

The case grew out of the following state of facts: On November 15, 1907, an inspector of the Department of Agriculture purchased from the Semmes-Kelly Company, 621 Pennsylvania avenue, Washington, D. C., one barrel of cider labeled "apple cider." This barrel was one of a shipment of one hundred and thirty-five barrels, from the manufacturers, the American Fruit Product Company, Rochester, N. Y., shipped to the Semmes-Kelly Company on or about November 9, 1907.

The sample purchased by the inspector was duly analyzed in the Bureau of Chemistry, Department of Agriculture, and the following result obtained and stated:

Alcohol by volume (per cent)	11.93
Solids (per cent)	3.82
Polarization (degrees Ventzke)	4.0
Reducing sugar after inversion (per cent)	1.28
Sucrose	0.00
Ash (per cent)	0.277
Benzoic or salicylic acid	None
Alkalinity of ash	

30.9 cc. N/10 NaOH for 100 cc. of cider.

Phosphoric acid, P_2O_5 (per cent) 0.019 |

The analysis unmistakably proved that this cider was not the pure expressed juice of apples. The quantity of alcohol determined was 11.93 per cent, an amount so great that it was apparent that some foreign sugar had been added. The cider was therefore misbranded within the terms of Section 8 of the act, and on November 22, 1907, the Secretary of Agriculture reported the facts to the United States attorney for the District of Columbia.

Libel for seizure and condemnation of the one hundred and thirty-five barrels of cider was duly filed in the Supreme Court of the District of Columbia under Section 10 of the act, upon which seizure was forthwith made and notice given to the Semmes-Kelly Company and all claimants to show cause why the cider should not be condemned.

Respondent having failed to answer or show any cause against condemnation, the cider was adjudged to be misbranded and ordered to be sold as set forth in the decree hereinbefore stated.

This is the first case determined under the Food and Drugs Act and the first to be thus reported. It is interesting as involving the practice of adding sugar to the natural juices of fruit for the purpose of increasing the alcoholic content.

H. W. WILEY,

F. L. DUNLAP,

GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,

Secretary.

Washington, D. C., April 22, 1908.

F. I. D. 90.

Issued April 16, 1908.

United States Department of Agriculture

OFFICE OF THE SECRETARY.
BOARD OF FOOD AND DRUG INSPECTION.

FOOD INSPECTION DECISION 90.

THE LABELING OF FOODS AND MEDICINAL MIXTURES FOR STOCK AND POULTRY.

The Department has frequently received inquiries in regard to the labeling of bran, of which the following is a fair sample:

"Can the screenings of wheat, consisting principally of shrunken seed, etc., be put in the bran and it still be called bran, etc."

Since the above is clearly in violation of those provisions of the law requiring that a food product be true to label, the Department is of the opinion that it will be necessary to label such a mixture as "Bran and Screenings."

It has recently come to the attention of the Department that a number of the cattle and poultry foods sold on the American market contain enough poisonous weed seeds, such as corn cockle and jimson weed (Jamestown weed), to have a more or less toxic effect on poultry, cattle, etc. Poultry and cattle foods which contain poisonous weed seeds in appreciable quantities will be considered as adulterated in accordance with those provisions of the food and drugs act, June 30, 1906, forbidding the presence of poisonous or deleterious ingredients.

The Department has been asked by the manufacturers of medicinal mixtures for poultry, cattle, etc., whether such mixtures may, under the law, be labeled respectively as cattle and poultry foods. It is thought, first, that the words "Cattle Food" or "Poultry Food" should apply to cattle or poultry foods which are not mixed with any condimental or medicinal substance or substances; second, that mixtures of cattle and poultry food materials, with small quantities of condiments, such as anise seed, ginger, capsicum, etc., should be labeled as "Condimental Cattle Food," or "Condimental Poultry Food;" and third, that mixtures of cattle-food materials with medicinal substances, such as arsenic, sulphate of iron (copperas), etc., should not be labeled as foods, but as medicines, or remedies. For example, under the latter ruling, a cattle food mixed with medicinal substances, such as arsenic, copperas, etc., should be plainly labeled as a remedy, or medicine, so as to differentiate clearly such a substance from a cattle food material unmixed with medicinal agents.

H. W. WILEY,

F. L. DUNLAP,

GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,

Secretary of Agriculture.

WASHINGTON, D. C., April 8, 1908.

F. I. D. 91

Issued April 25, 1908

United States Department of Agriculture

OFFICE OF THE SECRETARY.
BOARD OF FOOD AND DRUG INSPECTION.

FOOD INSPECTION DECISION 91.

THE LABELING OF MOCHA COFFEE.

In Food Inspection Decision 82 the Department has indicated its views with respect to the restrictions which it is necessary to place upon the sale of coffees coming from the Dutch East Indies, particularly with respect to such coffees as are known under the name of "Java" coffee.

Among the coffees largely sold upon the American market are those which go by the name of "Mocha." Because of the commercial value of the true Mocha bean, it becomes necessary to indicate the restrictions which must be placed upon the coffees put upon the market and sold under the name of "Mocha."

This matter has been fully investigated and valuable information obtained through the Department of State and from the consul and consular agent in those districts where the true Mocha coffee is grown and whence it is shipped to America and other parts of the world.

The following quotations are taken from the report submitted to the Department of State from the consular agent at Aden under date of January 3, 1908:

"The Mocha coffee is produced in that district of southern Arabia known as 'Yemen.' The latter is a strip of territory commencing at a point on the Red Sea a little north of the port of Hodeidah and extending first southeast to the Strait of Bab-el-Mandeb and then east nearly to Aden. Yemen is, with the exception of a narrow fringe of land along the Red Sea and the Gulf of Aden, rugged and mountainous, embracing innumerable small, elevated valleys of high fertility which are irrigated by waters from the melting snows. This is the coffee district of Arabia.

"The term 'Mocha' was bestowed upon 'Yemen' coffee early in the last century, when Mocha was the port from which all Arabian coffee was shipped. The formation of huge sandbars in the Red Sea off Mocha, practically barring out all shipping, caused the port to be abandoned, and its trade went to Hodeidah and Aden, the bulk of it going to the latter place.

"As all of the coffee raised in Yemen may properly be called 'Mocha' coffee, all coffee shipped from the port of Hodeidah comes within such classification. With regard to that exported from Aden, however, the case is somewhat different. There is a coffee grown in the upland regions of Abyssinia, in the vicinity of Harrar, which is known locally and to the coffee trade of the world as 'Longberry' or 'Harrar' in contrast with that of Mocha, which is sometimes called the 'Shortberry.' The colors of both coffees are practically the same, but the Abyssinian product has a raw, rank, leathery odor, while that of the berry grown in Arabia is delicate and agreeable. The Harrar berry is much longer than the Mocha one, besides being much less regular in form.

"While a considerable quantity of Abyssinian coffee is brought to Aden for shipment to Europe and to the United States, it is doubtful whether very little of it, if any, is exported as being Mocha coffee, the local mer-

chants as a rule dealing in both grades of coffee and being very careful of the reputation of their houses. In Aden the only way in which a dishonest dealer might adulterate Mocha coffee would be by mixing it with the Abyssinian article. Such a proceeding would be at best but a clumsy fraud and would be readily and rapidly detected. It is safe to say that practically all of the coffees shipped directly from Hodeidah or Aden to the United States and labeled 'Mocha' are pure and unadulterated."

The Board is of the opinion that the term "Mocha," as applied to coffee, should be restricted as indicated in the above communication from the consular agent at Aden, that is, to coffee grown in that part of Arabia to the north and east of Hodeidah, known as Yemen.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,
Secretary of Agriculture.

WASHINGTON, D. C., April 18, 1908.

F. I. D. 92

Issued May 7, 1908

United States Department of Agriculture

OFFICE OF THE SECRETARY
BOARD OF FOOD AND DRUG INSPECTION

FOOD INSPECTION DECISION 92

THE USE OF COPPER SALTS IN THE GREENING OF FOODS.

As provided in Food Inspection Decision 76, the Secretary of Agriculture has considered the question of foods greened with copper salts. It has been decided that foods so treated are not entitled to entry into the United States under the provisions of Section 11 of the Food and Drugs Act. Inasmuch as contracts have already been made for the present year's pack, until January 1, 1909, all vegetables greened with copper salts, but which do not contain an excessive amount of copper and which are otherwise suitable for food, will be allowed entry into the United States, if the label bears the statement that sulphate of copper or other copper salts have been used to color the vegetables. On and after January 1, 1909, no foods greened with copper salts will be allowed entry into the United States.

GEORGE B. CORTELYOU,
Secretary of the Treasury.

JAMES WILSON,
Secretary of Agriculture.

OSCAR S. STRAUS,
Secretary of Commerce and Labor.

Washington, D. C., May 1, 1908.

INTERNAL REVENUE

(T. D. 1346.)

Denatured alcohol.

Amending Regulations 30, relating to the casking and storing of denatured alcohol on denaturing bonded warehouse premises.

[Circular No. 27—Int. Rev. No. 720.]

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
Washington, D. C., April 21, 1908.

Section 38, Part I, Regulations 30, is hereby amended so as to read:

"SEC. 38. The distiller may from time to time, as he wishes, in the presence of the officer, draw off from the tank or tanks the denatured product in quantities of not less than 5 gallons at one time, and the same must at once be gauged, stamped, and branded by the officer; and in case of specially denatured alcohol, provided in Part VI of these regulations, the same may be drawn off, gauged, stamped, and stored in the denaturing bonded warehouse. Not more than 100 barrels may be stored at one time, and for a period not exceeding ninety days. The privilege herein granted is extended to completely denatured alcohol; and so much of section 51, Part I, of said regulations as is inconsistent herewith is hereby revoked. Distillers may also draw off denatured alcohol for shipment in tank or tank cars, as provided in Part IV."

The second paragraph of section 36 of said regulations is hereby amended so as to read:

"In the case of specially denatured alcohol where the quantity ordered at one time does not exceed five packages, the alcohol and denaturants used may be mixed in packages instead of the mixing tank."

ROBT. WILLIAMS, JR., *Acting Commissioner.*

Approved:

BEEKMAN WINTHROP, *Acting Secretary.*

(T. D. 1347.)

Denatured alcohol.

Relating to the establishment and operation of stills at agricultural experiment stations for the manufacture of denatured alcohol.

[Circular No. 29—Int. Rev. No. 721.]

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
Washington, D. C., April 27, 1908.

Section 4 of the act of March 2, 1907, relating to denatured alcohol, provides:

That at distilleries producing alcohol from any substance whatever, for denaturation only, and having a daily spirit-producing capacity of not exceeding one hundred proof gallons, the use of cisterns or tanks of such size and construction as may be deemed expedient may be permitted in lieu of distillery bonded warehouses, and the production, storage, the manner and process of denaturing on the distillery premises the alcohol produced, and transportation of such alcohol, and the operations of such distilleries shall be upon the execution of such bonds and under such regulations as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may prescribe, and such distilleries may by such regulations be exempted from such provisions of the existing laws relating to distilleries as may be deemed expedient by said officials.

Under and by virtue of the authority conferred by said section 4, distilleries having a daily spirit-producing capacity of not exceeding 100 proof gallons, (a) established by the Department of Agriculture at any of its experiment stations, or by any agricultural college of any State or Territory at any experiment station established under the laws of such State or Territory, for the production of alcohol for denaturation only, are hereby exempt from any and all provisions of existing law relating to distilleries, except the provisions of sections 3258 and 3264, Revised Statutes, relating to the registry of stills and the survey of distilleries, and so much of section 3259 as requires every person intending to engage in the business of a dis-

tiller to give notice in writing to the collector of the district where the business is to be carried on. Distilleries so established will constitute a separate and distinct class to be designated as "*Agricultural experiment distilleries*," and will be subject to the following regulations:

1. Each such distillery shall be operated under the supervision of a regularly designated officer of the Department or college, who shall file with the collector of internal revenue of the district a registration in duplicate, on Form 26, of the stills when set up for use. Such officer shall also file with the collector a notice in duplicate setting forth—

(a) Name and location of the Department or college establishing such distillery.

*The daily spirit-producing capacity of such distilleries will be determined on the basis of twenty-four hours, as fixed by Section 3264, Revised Statutes, and the lowest spirit-producing material to be used in operating such distilleries.

(b) The exact location of the distillery.

(c) The kind of each still and its cubic contents in gallons.

(d) The kind of material to be used; the estimated fermenting. For each kind of material, and the estimated quantity of alcohol in proof gallons to be produced each day from each.

(e) The formula under which the alcohol so produced is to be denatured, and—

(f) The size, description, and location of the building or tank in which the alcohol produced is to be denatured and stored.

2. On filing the foregoing notice such officer will also file with the collector a bond in duplicate in a penal sum of not less than \$1,000 and with sureties satisfactory to the collector. Such bond will be in the following form:

Know all men by these presents, That we ———, of ———, as principal, and ———, of ———, and ———, of ———, as sureties, are held and firmly bound unto the United States of America in the full and just sum of ——— thousand dollars, for the payment whereof to the United States we bind ourselves, our several heirs, executors, administrators, and assigns, jointly and severally, firmly by these presents.

Witness our hands and seals at ———, on this ——— day of ———, 190—.

Whereas the above bounden principal, for and on behalf of the ———, has, under the provisions of section 4 of an act of Congress, approved March 2, 1907, and regulations issued pursuant to said act, registered with the collector of internal revenue of the ——— district of ———, a distillery located at ———, county of ———, State of ———, in said district, and whereas the said principal intends for and on behalf of the said ——— to operate said distillery for the purpose of conducting experiments in the manufacture of alcohol for denaturation only.

Now, therefore, the condition of this obligation is such that if all the requirements of said law and regulations respecting the operations carried on at said distillery, including the production, denaturation, storage, and use of all alcohol or spirits on said distillery premises, are fully complied with, and if the said distillery while so registered shall be used for no purpose other than that authorized by said act and regulations, then this obligation to be void; otherwise to remain in full force and virtue.

————— (SEAL).

————— (SEAL).

————— (SEAL).
Signed, sealed, and delivered in the presence of—
—————
—————

Upon the approval of the bond by the collector the duplicate thereof, together with the duplicate notice filed, will be forwarded to the Commissioner of Internal Revenue, and the distillery so registered and bonded may thereafter be operated for the purpose described in the notice, subject to the following requirements and limitations:

3. The alcohol produced must be not less than 180 degrees proof; and, unless conveyed directly to *locked storage tanks*, must be at once completely denatured—i. e., during the same day when produced—under Formula 1 or 2, prescribed on page 23 of Regulations 30, revised July 15, 1907.

If conveyed to locked storage tanks, the alcohol must be likewise denatured and not later than the last day of the month during which it is produced.

When so denatured, the alcohol may be used on the distillery premises for fuel, light, or power, or for any experimental purpose; or may be sold or otherwise disposed of, after the same has been denatured and the packages containing the same have been duly marked and stamped, by an officer to be detailed for this purpose by the collector of the district. Under no circumstances should the alcohol when denatured be recovered by redistillation or by any other process, as such recovery (except in the case of manufacturers, where the alcohol is to be reused for manufacturing purposes) is expressly prohibited by section 2, act of June 7, 1906.

4. At the end of each month, or within ten days thereafter, the officer under whose supervision the distillery was operated during the month will furnish the collector of the district a written statement showing (a) the kind and quantity of materials used during the month, (b) the fermenting period of each kind of material used, (c) the number of boilings each day the distillery was operated and the quantity of alcohol, in wine and proof gallons, produced each day from each kind of material used, (d) the kind and quantity of denaturants used and the quantity of alcohol (in wine and proof gallons) denatured during the month, and (e) the disposition of the alcohol so denatured.

The business so carried on at such distilleries will at all times be subject to inspection by the internal-revenue officers.

The foregoing regulations will take effect May 1, 1908, and until printed blanks of the forms herein prescribed are furnished typewritten forms may be used.

ROBT. WILLIAMS, JR., *Acting Commissioner*.

Approved:

BEEKMAN WINTHROP, *Acting Secretary of the Treasury*.

(T. D. 28712—G. A. 6713.)

Rotten Fruit—Examination—Evidence.

1. Section 2901, Revised Statutes—Average Decay—Packages Not Examined. Where as many as one package of every ten packages of imported fruit, designated by the collector of customs for examination under section 2901 of the Revised Statutes, are actually examined and a certain percentage is ascertained to be rotten and worthless, it may be assumed *prima facie* for the purpose of assessing duty that

the same average percentage of rotten fruit exists in the other packages in the importation which were not examined.

2. Where Less Than 10 Per Cent of Packages Examined—Presumption. But where less than 10 per cent of such packages are examined no such presumption can be indulged as to the unexamined packages; and hence reliquidation will be authorized only on the packages actually examined to the extent satisfactorily shown by the evidence.

3. Percentage of Decay—How Proved. In such cases it is unnecessary to prove the exact amount of rotten fruit contained in the packages or importation, but the quantity may be proved by satisfactory estimates made by competent witnesses.

4. Where Packages Are Sold Without Separation. Rotten fruit, worthless and unfit for commerce, and which would be nondutiable if separated from the sound fruit in the same packages, does not become dutiable because not separated and sold in such packages on the market.

UNITED STATES GENERAL APPRAISERS, NEW YORK,
JANUARY 27, 1908.

In the matter of protests 220417, etc., of Joseph Denunzio Fruit Company against the assessment of duty by the surveyor of customs at the port of Louisville.

Before Board 3 (Waite, Somerville, and Hay, General Appraisers; Waite, G. A., absent).

Somerville, General Appraiser: The importations covered by each of these protests consist of lemons, some of them contained in full boxes and others in half boxes. The various quantities contained in each importation are as follows:

Protest 220417/349, 254 boxes lemons and 41 half boxes lemons, *ex Vincenzo Bonano*; protest 272129/769, 300 boxes lemons, *ex Carpathia*; protest 272130/772, 350 boxes lemons, *ex Luisiana*; protest 272131/784, 390 boxes lemons, *ex Dora Baltea*.

Portions of the fruit were in a decayed condition, and the surveyor of customs at Louisville, Ky., regarded this as a case of damage and not of shortage or nonimportation. The assessment was made accordingly by him upon all of the lemons without any deduction on account of this decay. All the goods were imported at New York and entered for Louisville on an immediate-transportation entry. The importers claim that there should be an abatement of duty on the ground that a certain portion of each of the importations was decayed and rendered worthless so as no longer to be merchandise imported from a foreign country within the meaning of the tariff act. In other words, the contention is that the decayed fruit constituted nonimportations within the principle decided by the Supreme Court in *Lawder v. Stone* (187 U. S., 281; 23 Sup. Ct. Rep. 79).

The testimony taken at the hearing, which was held at Louisville, shows the following state of facts: The importation covered by protest 220417 embraced 254 boxes of lemons and 41 half boxes of lemons. The appraiser reported in this case that there were examined by him 30 whole boxes and 10 half boxes, which would be more than 10 per cent in quantity of the goods in question; that portions of the goods were rotten, decayed, and absolutely worthless, and that this decay amounted to at least 40 per cent of the entire importation. This estimate is satisfactorily sustained by the testimony given at the hearing. Protest 272129 embraces 300 boxes of lemons. Of this

number only "15 or 20" boxes are shown to have been examined. Protest 272130 covers 350 boxes and protest 272131 covers 390 boxes. The testimony, however, shows that only "15 or 20" boxes of lemons in each of these last three importations were subjected to examination.

It thus appears from the testimony that although the surveyor directed one box or package of every ten packages embraced in each of the protests to be examined, this direction was not complied with except in the case of the first-named protest 220417.

Section 2901 of the Revised Statutes, relating to the number of packages of imported merchandise required for examination, provides, among other things, that the collector shall designate on each invoice at least one package, and one package at least out of every ten packages of merchandise, and a greater number should he or either of the appraisers deem it necessary to be opened, examined, and appraised, and shall order the package or packages so designated to the public stores for examination. It has been held that this section was intended for the benefit of the Government, and that it is not mandatory, and, furthermore, that official acts are not rendered invalid for want of strict compliance therewith. *United States v. Ranlett* (172 U. S., 133, 142), *Erhardt v. Schroeder* (155 U. S., 124), and *United States v. Loeb* (107 Fed. Rep., 692; 46 C. C. A. Rep., 562).

We are of opinion accordingly from the testimony that the estimate of 40 per cent of decay testified to by the importers' witnesses and admitted by the appraiser in his report to the Treasury Department, is a fair average of the amount of rotten lemons contained in the 254 boxes of lemons and the 41 half boxes covered by protest 220417. This protest is accordingly sustained to such extent and the collector is instructed to reliquidate the entry upon this basis.

We do not feel justified, however, in sustaining the other protests to the full extent claimed by the importers. The "15 or 20" boxes examined in the case of protest 272129 shows an estimate of 40 per cent of decayed fruit contained in the boxes examined, the total number of boxes, as we have said, being 300. The same proportionate amount of decay is shown to exist in the case of the "15 or 20" boxes examined out of the 350 covered by protest 272130. In the case of the "15 or 20" boxes examined out of the 390 boxes covered by protest 272131 the estimate of 60 per cent seems to be about as fair as can be judged from the evidence. It appears from the evidence in these cases, however, that some of the boxes as stated by the witnesses were shown to have been in very good condition, showing a decay of not more than 15 or 20 per cent, and others of those examined were estimated to be as high as 75 per cent. In view of this great variation as to the amount of decayed fruit in the several packages examined, we find no warrant for assuming that the same amount or percentage existed in the boxes or packages not examined. Especially is this true in view of the want of compliance with the requirements of section 2901 of the Revised Statutes, above cited, and the explicit directions of the surveyor, as shown on the face of each of the invoices.

Many decisions bearing on this question have been made by the courts in which the following propositions may be considered as having been settled: In *Courtin v. United States* (153 Fed. Rep., 594; T. D. 26998), decided by the circuit court for the southern district

of New York, it was held that imported fruit, which has so far decayed as to be absolutely unfit for commerce and which would be nondutiable if separated from the sound fruit in the same package, is not dutiable because it is kept with the good fruit and sold with it instead of being separated. If the importer is able to show by satisfactory evidence the quantity which has become valueless through decay, he is entitled to an allowance therefor in the duty. It was further held in the same case that in ascertaining the allowance which should be made for decay in an importation of fruit in packages, where the importer or appraiser examined at least one package out of every ten in each consignment, it could be assumed that the percentage of loss in those packages prevailed through all the other packages, and that this would be a reasonable way of arriving at the percentage of the decayed fruit, and that proof of such percentage would justify an allowance on that basis. In that case estimates of the rotten fruit which were made by the importers or their witnesses was held to be satisfactory proof, the decay. That decision reversed a decision made by the Board of General Appraisers, G. A. 5865 (T. D. 25843), and on appeal it was affirmed without opinion by the circuit court of appeals for the second circuit, which is found reported in T. D. 28654.

In the case of Rathbun v. United States (T. D. 27430; suits 3762 and 3765) a like ruling was made by the United States circuit court for the same district, following the Courtin case. In the case of Villari v. United States (147 Fed. Rep., 766; T. D. 27396) it was held that making estimates of the percentage of damage was a satisfactory method of ascertaining the quantity of decayed fruit in any importation, and, furthermore, that the importer was not under any obligation to avail himself of the provisions of section 23 of the act of June 10, 1890, bearing on the question of abandonment, and that the failure of the importer to do so would not affect the case one way or the other. It was further decided that the amount of decay in sample packages of fruit, which were selected as representative of the whole lot and were used as the basis of the sale of the fruit at auction (where the packages examined amounted to at least 10 per cent of the whole number), might be properly assumed to indicate that the same proportion or percentage of decay existed in the unexamined packages.

In the case of Stone v. Shallus, decided by the circuit court of appeals for the fourth circuit (143 Fed. Rep., 486; T. D. 27133), that court affirmed the decision of the Board and of the circuit court for the district of Maryland (137 Fed. Rep., 674; T. D. 26315). Judge Keller, speaking for the court, stated that the rot in the fruit was "not discoverable or discovered until the boxes were opened at the dock under the supervision of a Government inspector." The fruit in that case consisted of oranges which were contained in packages, and it was held by the court that no distinction could properly be made in cases where a portion of the fruit was decayed so as to be absolutely worthless, whether contained in boxes or in bulk. This view was held to be sustained in effect by the Supreme Court in the case of Lawder v. Stone (187 U. S., 281).

Following the foregoing authorities, we sustain protest 220417 for the reasons we have before stated to

the extent of 40 per cent of the fruit in the whole importation. Inasmuch, however, as less than 10 per cent of each of the other importations covered by protests 272129/31 was examined, we can not assume that the "15 or 20" boxes which were examined in each of these cases, which did not exceed 5 per cent of the importations, would properly represent the amount of decayed fruit contained in all of the boxes not examined. It is to be assumed that when one of the importers stated in his testimony that he examined in each of the last three mentioned importations from "15 to 20" boxes of lemons, the statement of the quantity was made as strongly in his own favor as comported with veracity and fairness. The number actually examined, therefore, must be considered as not exceeding 15 boxes in each of these last three protests. We find accordingly that the total amount of lemons contained in the boxes examined in the importations covered by protests 272129/31 would be 4,500 in each case. Protests 272129 and 272130 are accordingly sustained only to the extent of 40 per cent of the quantity actually examined, namely, 15 boxes in each case, and protest 272131 is sustained to the extent of 60 per cent of the same quantity examined in this case. The collector's decision is reversed in each instance with instructions to reliquidate the entries in accordance herewith.

GOODS MUST NOT BE EXPOSED.

At the last session of the Atlanta city council an ordinance was adopted, providing "that from and after June 1, 1908, it shall be unlawful for any person, firm or corporation, or agent for such, to display any groceries, vegetables, meats, dates, figs, prunes or other goods used for food and liable to collect dirt, dust and filth from the streets, on the outside of any building where such persons, firm or corporation or agent is conducting any business." The penalty for violating the terms of this ordinance shall be a fine in the sum of not more than ten dollars or imprisonment for not more than thirty days, one or both, in the discretion of the recorder. Petitions for the repeal of the ordinance are being freely circulated. It is asserted that many stores cannot display their goods in any other way, and that the danger from infection amounts to no more than if the goods were kept inside the building. Formerly the merchants were allowed two feet space on their sidewalks for this purpose.

TOO EXACT FIGURES.

Dr. W. P. Cutler, pure food inspector for Kansas City, Mo., told recently in a speech in that city that he had found in one-quarter teaspoonful of milk taken from a restaurant over 50,000,000 bacteria and disease germs. What is worrying us is how the doctor can be sure that he did not miss a million or two of them. He certainly did not stop to count them, and if he lumped them off, we are afraid his count is unreliable.—Blackwell, Oklahoma, Record.

Killeen (after ordering the largest beer in the house): An' is thot th' largest beer ye give a mon fer foive cints?

Barkeep (sarcastically): Vot you oxford fer a nickel—a kaag?

Killeen: Shure, an' Oi'm puzzled to know if Oi had ordered a short beer whether ye would hov placed it on me tongue wid a medicine dropper or jist sprayed me throat out wid an anatemizer.—Judge.

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 Prof. Henry G. Knight, State Chemist, Laramie.

ILLINOIS DRUGGISTS VERSUS GOVERNOR DENEEN.


Disregard of the recommendations submitted by the Illinois Pharmaceutical Association for the appointment of members of the State Board of Pharmacy by Governor Deneen caused much criticism and no little excitement at the time the executive set himself up as a judge of the best way to benefit pharmacy in his state. While personally and professionally at least one of his appointees was not objectionable to many pharmacists, the manner and the method of making the appointments and the injection of politics into a purely professional branch of the state government were decidedly objectionable, while his rebuff of the Illinois Ph. A. was more than mere discourtesy—it amounted to a brutal affront.

It was charged at the time that the Governor was trying to build up a political machine of his own and figured on making the State Board of Pharmacy one of the cogs in the organization. Color was given to this view by the fact that one of the appointees had himself been an offender against the pharmacy laws and had repeatedly been convicted of violating its provisions. The whole controversy will not be threshed out again, as Deneen is a candidate for re-election. It will be interesting to observe the course of the Illinois druggists in aiding or opposing his ambition. At this distance from the scene of action it would look as if Governor Deneen is a mighty good man to be retired to private life, where his views of public service can be practiced without harm to anybody but himself.—Pharmaceutical Era, New York, February 27.

FARMERS AND DAIRYMEN

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CHICAGO, JUNE 15, 1908

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Illinois Food Commission Report Swift & Company Plant Clean and Sanitary.

The Report of the Inspection of Swift & Company's Plant by the Illinois Food Commission is Highly Complimentary to this Company and Indicates that Nowhere in the World are Meat Products Prepared with Such Care, Skill and Cleanliness as in the Plant of Swift & Company at the Union Stock Yards, Chicago, Ill.

OFFICIAL REPORT OF STATE INSPECTORS ON SWIFT AND COMPANY'S PLANT.

Hon. A. H. Jones, State Food Commissioner,
Robinson, Ill.

Dear Sir: In the tour of inspection of the Stock Yards, we visited Swift & Co.'s establishment, where we found approximately 6,000 people employed, about 1,000 of whom were employed in the office. There are not many women employed in this plant, there being about 125 who are engaged chiefly in tying sausages, hams, making soap, etc.

Swift & Company kill a daily average of 2,200 hogs, 1,500 cattle and 2,000 sheep. They make large quantities of Oleo oil and about 80 per cent of their entire product is shipped out of the United States. Leaf lard, steam rendered lard and neutral lard are the three grades in which they make their lard, following the different methods indicated in our report of other packing houses.

Swift & Company have more than 40 acres of buildings with nearly 90 acres of floor space in Chicago alone. They also have large plants in Kansas City,

Omaha, and other Western cities. Their products are shipped to nearly all countries in the world. They are large manufacturers of oleomargarine, and in our investigation of this department of their plant, the foreman showed us some creamery butter to which no coloring matter had been added, which has to be used in the manufacture of oleomargarine. We were informed that this would give the oleomargarine a very fair butter color without the addition of coloring matter.

As to the sanitary conditions of the plant and the healthful condition of the animals killed, these are now being watched by government inspectors who are very careful in their work, and it seems to be almost impossible for any animal to pass their notice that is diseased or unfit for food. When the Federal inspectors condemn an animal there is no appeal from the decision, no controversy

about it—it is merely treated as they say, and if they say that it be put into the rendering vat, into the rendering vat it goes, and while this is true, while the inspector has been very thorough, it seems that the other persons in the em-



GENERAL OFFICE OF SWIFT AND COMPANY.

ploy of the company are in sympathy with the inspector and are perfectly willing that the thorough inspection should be maintained.

During our inspection in this plant, while in the beef slaughtering department, we found four animals which had been condemned by the Federal inspectors for tuberculosis and ordered to the rendering tank, where they had already been placed. We cannot believe that these conditions, particularly as to tuberculosis in its incipient stages would be discovered at all in the ordinary methods of slaughtering animals in the country and we think that the Federal inspectors being veterinary surgeons lends absolute insurance as to the wholesomeness of every animal product that is put out by these plants.

The sanitary conditions of the plant are excellent, and when one considers the large number of animals that are killed in the plant every day, with the large force of employes working, it is a matter of surprise that every detail of the business is kept on in such a very cleanly and systematic manner. Each person seems to have a particular part of the work to do and to take an especial pride in keeping everything in the best sanitary condition in their different departments.

rooms, shower baths and lockers for the street apparel of the employes—everything in fact, is fixed up in the best condition and no expenditure of money or time has been spared to make the product of their plants clean and wholesome.

Respectfully submitted,

J. C. Eagleton,
T. J. Hoey,
Inspectors.

AMENDMENT TO NEW HAMPSHIRE FOOD AND DRUG LAW.

Acts of 1908, Chapter 238.

An Act Relative to the Sale of Adulterated Food and Drugs.

Be it enacted, etc., as follows:

Section 1. Sections twenty-five and twenty-six of chapter seventy-five of the Revised Laws, relating to the sale of adulterated foods and drugs, are hereby repealed.

Section 2. This act shall take effect upon its passage. (*Approved March 18, 1908*).

The sections above mentioned were the original



There are three Rabbis all the time in the employ of this company, whose duty it is to prepare Kosher meat. We were in one of the killing rooms after they had ceased their killing for the day and were flushing the floor. This was done by taking a large hose and turning the stream of water on with sufficient force. When it was taken off we could rest assured the floor was clean.

We mentioned to you that they used creamery butter in manufacturing oleomargarine. Swift & Company make two grades of oleomargarine; one is their "Premium" brand which contains 40 per cent of butter and the other is their "Jersey" brand which contains about 20 per cent butter. Their cold storage and meat smoking departments, as well as the rooms for storing meats, present the appearance of entire cleanliness all the time. These rooms are very, very large, many hundreds of animals being packed or stored at the same time. Swift & Company take an especial pride in displaying their plant, together with all the workings thereof to the public, and take great pains to show one over the entire plant.

They have splendid ventilation in their offices and throughout the buildings. There are ample toilet

laws relative to adulterated foods and drugs, antedating by many years the comprehensive act (chapter 263) passed in 1882. Containing the words "knowingly" and "fraudulently," they were impossible of enforcement; providing different penalties, they were in conflict with section 24, which establishes the penalty for violation of sections 16 to 27, inclusive; and producing nothing but confusion, their repeal was most desirable.

Acts of 1908, Chapter 197.

AN ACT RELATIVE TO THE SALE OF BREAD.

Be it enacted, etc., as follows:

Chapter fifty-seven of the Revised Laws is hereby amended by striking out section six and inserting in place thereof the following:—Section 6. Whoever violates any provision of the preceding three sections shall be punished by a fine of not more than ten dollars for each offense. The sealer of weights and measures in the respective cities and towns, or the commissioner of weights and measures of the commonwealth shall cause the provisions of the said three sections to be enforced. (*Approved March 10, 1908*).

"THE MILK SUPPLY AND ITS RELATION TO HEALTH."

BY B. R. RICHARDS, DIRECTOR OF LABORATORY OF BOSTON BOARD OF HEALTH.

Milk is a universal food and a perfect one. On it alone man could support life for an indefinite period—provided the supply was pure. As a food it has several things in its favor, namely, that it contains the four classes of nutrients, protein, fats, carbohydrates and mineral matter in about the proper proportion; it is cheap and it is easily digested. It is not therefore to be wondered at that it has been used from earliest times by all peoples.

As it comes from the cow it contains in the neighborhood of 87 per cent water, the remainder or milk solids $3\frac{1}{2}$ to $4\frac{1}{2}$ butter fat, a small amount of mineral matter and several nitrogenous substances chief of which is casein.

It is sometimes asked why milk should receive so much more attention from hygienists than other food. As a matter of fact the whole subject of food is receiving much more attention than formerly, but milk takes precedence over all others, owing to the peculiar conditions surrounding its production which may easily lead to infection, and to the fact that it is taken into the system uncooked.

As the world grows older each succeeding generation finds itself with new problems to solve. The pure milk problem at least in certain of its phases is distinctly modern. Preceding generations for the most part have found it an exceedingly easy matter to have fuller knowledge of the sources of their milk supply. In former times if a man did not himself keep a cow he bought milk from his neighbor and naturally knew the exact conditions of affairs at the barn. For the majority of us this state of affairs has passed, never to return, and we find ourselves at the mercy of some milk dealer miles away from us, the condition of whose dairy we know nothing about and to visit which would cost us from half a day to a day of valuable time. We are thus to a great extent dependent upon our local or state authorities to insure us a clean milk supply. The consumer, until lately satisfied if his milk showed a fair proportion of cream, has in some cases awakened to the fact that the opacity of milk covers many sins and that it is time for him to investigate the subject a little more closely.

Unfortunately, milk is just as perfect a food for bacteria as for man. Bacteriologists have taken advantage of this fact and use milk very commonly as a medium for growing their cultures.

As soon as the milk is in the pail these minute organisms, present to some extent even when the greatest care is taken, begin their work, thrive and multiply—incidentally changing the milk chemically by the products of their growth. As the organisms act on the milk it is safe to say that in the majority of instances the nutritious value of milk is lessened.

There may be, and usually is, a large number of different species of bacteria ordinarily present in the milk, but for the purposes of this paper we may divide them into two classes, the lactic acid or souring bacteria and the putrefactive organisms. The former are harmless, in fact, may even be considered as beneficial—the latter are distinctly harmful. Strange is it that we will cast aside meat that has the slightest taint and drink with satisfaction milk in an advanced state of putrefaction.

Suppose we imagine ourselves for the moment on a

milk farm. The farmer arrives from the fields after a day spent in plowing, seeding or what not. Perhaps he washes his hands—perhaps he doesn't. If the milking takes place after supper we will admit that his hands are probably washed. If it is winter he may spend a little time cleaning up the manure that has accumulated; if warm weather we will assume that the cows are fresh from pasture. Hay is thrown down for the cattle so as to keep them quiet during the milking process, incidentally also filling the air with dust. If the farmer is an extremely untidy man his animals may have—and this is no exaggeration—six months' accumulation of dung and dirt matted to the hair and udder, particles of which are flecked off and drop into the pail during the process of milking.

The farmer seats himself on the milking stool, but finds his hands hard and calloused from the work of the day. What more natural than that he should soften them with a little milk. If he is a little particular he may then wipe his hands on a dirty pair of overalls, otherwise he doesn't, but proceeds with the milking. The old-fashioned milk pail has flaring sides and no cover, making it easy to milk into and easier still to collect any dirt and dust coming that way; also easy for the cow if she gets restless to plant a hind foot squarely into the center of the pail. It may be good for the foot, but it is bad for the milk; however, it's dollars and cents to the milkman, and the milk is not always thrown away. The milk from the several cows is taken to the milk room—often called that by courtesy only—and there either mixed, strained and put into large cans if it has far to go, or bottled for nearby delivery.

In former times cans were returned from the city unwashed. After hours in a summer's sun, often covered with flies, one can imagine that a thorough cleansing was not always possible even with the best of intentions. Milk cans have in times past served as containers of molasses, vinegar or even kerosene, but recent laws have put a stop to this and require that the contractor shall return the farmer's can to him clean and sterilized.

It is perfectly true that I have painted the blackest side of the picture, but if you think I have overstated the conditions surrounding the production of milk in some of the barns in this or any other locality, investigate for yourselves. All farmers are not filthy and some barns are to be found than which nothing better could be asked. But the average farmer is not in the angel class and is going to keep his dairy in no better condition than his customers or the board of health demand.

Enough has been said to give you an idea of how milk may be well seeded with bacteria. Gross particles of dung and dirt can be filtered out, but the soluble portions and the bacteria in large part remain. For the sake of argument let us suppose for the moment that all the bacteria in the milk may be harmless to the stomach and intestines of a healthy adult. But suppose a case of scarlet fever, diphtheria or typhoid fever develops on the farm and you will see what a vast potentiality for trouble lies in milk. Also aside from milk as an indirect carrier of infection we may find it carried direct as in the case of a cow suffering from tuberculosis of the udder.

But even without the organisms of acute infectious disease, dirty milk may cause intense intestinal troubles. Particularly is this true of infants whose bodies are not yet old enough to successfully carry on

the fight against these infinitesimal organisms. Imagine the infant taken from the mother's breast, the milk from which is practically sterile, and placed on milk containing millions of putrefactive organisms. Is it any wonder that under such conditions cholera infantum is common and many babies lose their lives? These statements are not fancies, but facts. In Rochester, N. Y., in the eight years prior to the establishment of pure milk stations from which during July and August mothers could obtain pure milk for their children, the number of deaths among children under five years was 1,744. The number during the eight years after the stations went into operation was 864, or less than half. During this time the population increased 30,000.

In Cambridge during the past two years stations have been open during the summer for the sale of milk properly modified, and of known purity, which is sold to mothers practically at cost. This work was undertaken by a committee from the local medical society aided by an organization of nurses, and much good has been done. A local milk contractor has done considerable along this line.

If the public at large realized what any physician will tell you is true that a very large proportion of our infantile death rate is due to impure milk, then would the demand for pure milk be such as to drive out of the business those who will not or cannot produce milk under sanitary conditions. Much attention has been called recently to race suicide. Would it not be somewhat more to the point to make an effort to save those children already here? Boston's Floating Hospital is but another proof of what pure milk and pure air can do.

Aside from the enormous importance of dirty milk as a large factor in the infantile death rate what does impure milk mean to the adult? The adult stomach and intestines, when in perfect health can take care of vast numbers of bacteria, the gastric juices probably playing a large part in rendering them inactive. The weak or tired system feels the effect, however, and in the case of infected milk is the first to succumb. The organisms of diphtheria, typhoid and dysentery are carried by milk and undoubtedly multiply vigorously therein. The infective agent of scarlet fever also, we have good reason to believe is disseminated by milk. It often needs but one case of an infectious disease on the farm to cause an explosive epidemic in the city. Clean methods greatly lessen this risk.

Aside from the question of infection it is to say the least not a pleasant thing to think that we are taking into our systems quantities of cow manure or pus which, by a little care, could be kept out of the milk.

In a city of 600,000 the daily milk supply will be in the region of 370,000 quarts. If we estimate but one gram, or in round numbers 1.30 of an ounce of dung to every quart of milk we have the very interesting result that that city is consuming in her milk in one day 811 pounds a day or 148 tons of dung in a year. This ought to have some value as fertilizer, and we would rather have the farmer have the advantage of it.

What are the essentials of a clean milk supply?

1st. On the part of the farmer, clean healthy cattle, clean utensils, clean hands, clean barns, and if possible, a clean coat while milking.

If a cow has lain in filth and her flank and udder is caked with dung, it is an impossibility to milk without flecking off some of the dung and loose hairs into

the milk and thus at the very beginning lay a foundation for a heavy bacterial content. The clean dairyman keeps his cows well groomed and before milking wipes off flanks and udder with a clean damp cloth. Experiments have shown that this one point makes a tremendous difference in the bacterial content of the milk.

Clean utensils are an absolute necessity to clean milk. Everything coming in contact with the milk should be thoroughly washed immediately after use, otherwise it is not always possible to clean it completely. It used to be the practice for the contractor to forward cans from the producer directly let us say to some corner store from which they were returned first to the contractor and later to the producer in an unspeakable condition, perhaps having been used as containers of molasses, vinegar or even kerosene in the interim. This has in the last year or two been changed, the law requiring the contractor to have but one set of cans which are sterilized by steam before being sent back to the farmer—a second set of cans going back and forth between the contractor and the store. Responsibility is thus placed, and a law forbidding the use of milk cans for other purposes than milk has practically put an end to one source of trouble.

The use of a milk pail having but a small opening in the top. The instant removal of milk after milking to a milkroom, used for the purpose and that only—where the milk can be filtered, bottled or canned and set without delay in the cooler, a plentiful supply of hot water for washing purposes—are all factors having a strong effect on the result. A milk inspector in one of our cities in a neighboring state tells me that having compelled the dairymen to put in running hot water in their milk rooms, most of the men are wondering how they ever got along without it.

The second essential of a clean milk supply is the rapid transportation of the milk from the producer to the consumer without unnecessary delay, the milk being kept cold in the interim. It is a common practice to hold night milk over until morning, and send the night and morning milk together to the station, where it may remain for some hours in the sun, waiting for the train. Efficient icing on the train can hardly overcome the harm done.

The third essential of a pure supply is in rapid and cleanly handling at the milk receiving depots.

All the contractor's milk coming in during the afternoon is bottled, set in the cooler and held for delivery the following morning, because the average householder wants to be sure of receiving nice fresh morning's milk and thus demands that his milk be left in the early morning and also demands that his milk should show a well-marked cream line. To answer these demands the contractor is obliged to give his customer milk anywhere from 24 to 60 hours old.

The fourth point in securing clean milk is proper handling from the time the milk leaves the contractor or pedlar until it reaches the consumer. Pouring from can to can or from can to bottle is a practice to be discouraged. The average small corner grocery is in the majority of instances unfitted to sell milk, and in the opinion of the speaker the number of these places which are allowed to sell milk ought to be decreased. As a rule the poorest grade of milk finds its way to these places.

What can be accomplished in the way of securing a better milk supply:

Thirty odd years ago there was absolutely no inspection of milk whatsoever in Boston. Milk was watered, adulterated and preserved to such an extent that honest men were driven out of the business. Conditions became such that finally milk inspectors were appointed, analyses were made and men put into court for selling milk below the standard. To-day, although it is a physical impossibility to cover more than a small portion of the sources of supply, adulterated, watered or preserved milk is the exception.

Four years ago in Boston we started on the bacterial examination of milk. We found milk was handled in an uncleanly manner. A regulation was drawn up limiting the number of bacteria in milk to 500,000 per cubic centimeter—which in round numbers means around 100,000,000 to the tumbler full—a fairly liberal allowance you will admit. Examinations were begun for the number of bacteria present, for pus and pus producing organism. What has been the result? To-day 90 per cent of the milk as it comes into Boston is below 500,000 bacteria per cubic centimeter and 83 per cent is below 100,000. Dirty dairies are warned and if the warning does no good the milk is refused admittance to the Boston market. Pus, when found in milk, is, if possible, traced back to the herd and often to the cow in the herd. It has become nothing unusual for the milk inspector to find that the milk containing the pus was taken from a cow with a deceased or ulcerated udder, or from a cow either just before or just after the calving period. Dirty milk refused entrance into Boston has been sent to other cities and these cities in turn have begun bacterial milk examinations to protect themselves.

It takes in the neighborhood of 8,000 dairies to supply Boston. About 80 per cent of the milk comes into the city through the large contracting houses. The other 20 per cent is brought in in wagons from surrounding towns. It is, of course, impossible for us to examine samples from all of these dairies even once a year, but some samples are taken every day and the moral effect is excellent. No one dairy is sure but that its supply may be the very next one to be tested—consequently is obliged to keep its supply good at all times in order not to fall under the ban. The effect of the work on the milk contractor has also shown itself. In the majority of cases these men have shown a willingness and a desire to live up to the regulations and have done their part in conducting their end of the work in a sanitary manner. Some of these men have put inspectors of their own in the field to see that farms supplying them are kept in a cleanly manner. When a warning from the bureau of milk inspection is received stating that the milk from such and such a dairy shows a high bacterial content or that the milk contains pus or pus producing organisms, the notice is forwarded to the producer and a watch is kept on that particular dairy. The attitude of the contractors has in the main been one of co-operation. Many of them as a direct result of the work of the board of health laboratory have opened laboratories of their own and are thus in a position to know themselves as much about their milk from a bacteriological standpoint as they know about the chemical. The contractors have seen the advertising value of their farm inspection and laboratory examination and are taking advantage of it in street car, press and pamphlet. One firm has made their laboratory and bottling room a show room for strangers.

The practice of the corner grocery is often that of

keeping milk for hours on the counter after serving a customer before putting it back in the cooler. If this practice is carried out to-day the storekeeper sooner or later finds himself under the necessity of explaining why the temperature of his milk is above the legal limit.

What Boston has done Haverhill can do. Your problem is a simpler one than ours. I am informed that the milk supply of Haverhill comes from comparatively short distances, while ours comes from Maine, New Hampshire, Vermont, Connecticut, Massachusetts and even eastern New York. Your dairies are within easy inspecting distances, ours sometimes beyond reach except indirectly.

True it is that an inspector has no legal right to enter a dairy outside his own city. But the refusal of permission to enter a dairy bears on the face of it evidence that something is wrong, and a careful bacterial examination of milk from such a dairy will oftentimes bear out the suspicion. Efficient inspection will do much, but this should be backed by regulations establishing a legal limit on the bacterial content of milk and on the temperature. In a city the size of Haverhill, having its supply for the most part from not very distant places, a regulation of as low as 100,000 bacteria per cubic centimeter would not be a hardship. The temperature limit should be set at 50 degrees F. The three factors stated are all important and each has a direct bearing on the result.

A word should now be said on the farmers' side of the question. For uncleanness there is no excuse, and the dirty producer must either clean up or get out of the business. He has no right to imperil other people's lives. But, on the other hand, we cannot expect the farmer to build a milk room separate from his stalls—put in running hot water and make some other necessary changes in his methods and expect him to do all this for nothing. The farmer is not a philanthropist and you can't expect him to be one. He is not going to increase his investment in the way stated, pay more for hay and grain, work 14 hours a day and then get at best a new dollar for an old one. It costs money to handle milk in the way it should be handled, and the public should be willing to pay a cent, or even two cents, more a quart if they can be assured of getting a better article for their money. How many but would gladly pay more for milk if they became convinced that by doing so they would have to call in the doctor less often. Two quarts of milk at 16 cents have the same nutritive value as a pound of sirloin at 30 cents.

Clean, pure milk is not chimerical. The chemical changes in milk are very largely produced by bacteria and bacteria only. If milk could be produced absolutely free from all bacteria it would keep indefinitely. The speaker has kept a sterilized sample of milk for months, the milk remaining sweet and good. This is, of course, exceptional and impracticable, but milk can and has been produced under such conditions that without pasteurization, sterilization or other treatment it has been shipped across the ocean and back again before turning sour, the reason for this being an attempt to provide a supply of pure milk for infants on the ocean liners.

The watering of milk does no one harm—if the water be pure—except in the region of the pocket-book. The bacterial invasion of milk by means of dirty cows, dirty men, dirty barns and dirty utensils affects the health. The number of bacteria in milk is a cri-

terion of the way in which the milk has been handled—any improper handling at any step in its progress from producer to consumer showing in the bacterial content. Sooner or later the public will wake up to the fact that in this, as in other matters, health is our greatest asset.

DAIRY AND FOOD COMMISSIONER FOR THE STATE OF VIRGINIA.

The General Assembly of this State at the sitting recently held, enacted a law, under which the Governor is required to appoint a Dairy and Food Commissioner for the State, whose office shall be a part of the Department of Agriculture of the State and who jointly with the Commissioner of Agriculture and with the approval of the State Board of Agriculture shall appoint a Deputy Dairy and Food Commissioner and other necessary assistants. The commissioner shall hold his office for four years and subsequent appointments shall be made by the Governor and the General Assembly. The Commissioner is given full authority to inspect and have analyzed all dairy and food products for man or beast offered for sale in the State and power to seize and condemn same if not up to standard of purity and quality. In addition to these duties he is specifically required "to foster and encourage the dairy industry of the State and for that purpose to investigate the general conditions of the creameries, cheese factories, condensed milk factories, skimming stations, milk stations and farm dairies in the State with full power to enter upon any premises for such investigation with the object in view of improving the quality and creating and maintaining uniformity of the dairy products of the State." He has authority given to warn and notify any person selling unclean or unwholesome milk or other dairy products, not to sell same after such unclean or unwholesome condition has been determined by the Commissioner and any person failing to obey such notice and warning and continuing to sell shall be guilty of a misdemeanor and upon conviction shall be punished by a fine not less than \$10 nor more than \$50 or imprisonment in the county jail, not to exceed 90 days. He may require persons to make the necessary alterations in premises to correct unsanitary conditions and failure to obey such requirement subjects the owner of the premises to a fine or imprisonment. All manufacturers or sellers of concentrated commercial feeding stuffs, for feeding live stock, are required to affix to every package a plainly printed statement certifying the weight of the package, with the name or trade mark, the name of the manufacturer or shipper, and a guarantee stating the minimum percentage it contains of crude protein and fat and the maximum percentage of crude fibre. There are other stringent provisions affecting the sale of these concentrated feeding stuffs, such as requiring each package to be tagged with the Commissioner's tag, etc., and forbidding the sale of same without Commissioner's license. The act is now in force and the Governor has appointed W. D. Saunders, the Professor of Dairying, at the Agricultural College, Blacksburg, the commissioner to execute the law. This appointment is a most excellent one and we expect to see great progress made in dairying in this State under his direction. Every dairyman and stock-keeper should have a copy of the act.—*Southern Planter*.

Massachusetts has a new standard for milk under consideration.

WHISKY AND THE PURE FOOD LAW.

Why People Prefer the "Blend"—A Sane View of Prohibition.

One of the most interesting incidents in connection with the administration of the pure food law is the attempt of certain whisky interests to secure an interpretation of that law restricting the name "whisky" to their unrefined product, while denying it to the pure and more refined whisky.

This whisky interest has been aided in its efforts by Dr. Harvey W. Wiley, the government's chief chemist of undoubted ability, but is unfortunately the type of man who decides without investigation, and once his mind is made up he cannot see the slightest merit in any side of a controversy which does not agree with his own preconceived ideas.

These tendencies of Dr. Wiley have become so well known that the President has recently appointed a commission of five leading chemists, headed by President Remsen, of Johns Hopkins University, to examine and revise some of the opinions issued by Dr. Wiley, and to report as to the correctness of the analyses upon which they were based, and it is unfortunate for the whisky consuming public that this commission was not appointed before the President and others adopted Dr. Wiley's views on the whisky question.

Those who predict that the appointment of this commission is the beginning of the end of Dr. Wiley's official career point to the fact that for the past six months there have been no official utterances from the doctor.

Dr. Wiley is not the only man, however, in the government's service who has erred on this question. Attorney-General Bonaparte's various opinions on that portion of the pure food law dealing with the whisky question clearly disclose the fact that he has little knowledge of the subject. His perplexity is easily seen by the fact that his last formal opinion is almost a flat contradiction of the views expressed in his earlier one. His difficulties are increased by the fact that the Internal Revenue Department has for forty years been branding as whisky that product which the attorney-general now contends is not whisky. More than this, it is admitted that this same product was known as whisky long before the unrectified or so-called straight whisky was ever entitled to bear that name.

Although the specific point at issue between the blenders and the straight whisky men is rather technical, there are, nevertheless, a few points about it which are of undoubted interest to people who now and then indulge in an "eye opener," a highball or a nightcap.

The straight whisky interests claim that the only product entitled to be called whisky is the unrectified, unrefined product which goes from the receiving cistern directly into the charred oak barrels.

The blenders, on the other hand, maintain that a distilled spirit from grain, which has been purified and refined so as to remove almost all of the fusel oil, is more entitled to be called "whisky" than the unrefined product, and that the mixture of the two different kinds is justly entitled to be called "a blend."

Furthermore, the blenders maintain that their product was originally known, and has always been known, as whisky, and that the so-called charred barrel process came into use only fifty years ago. They

say, therefore, and with apparent justice, that it would be working an injury to and a fraud upon the consumer if the word "whisky" is denied their product and restricted to that which contains the greater amount of fusel oil and other by-products of distillation.

As to the preference of the public, it is sufficient to state that more than forty times as much of the blended variety is sold as of the straight.

The question, however, which confronts both the blended and straight whisky interests is the question of prohibition. This country is now experiencing one of the sporadic outbursts of prohibition legislation which occurs about every twenty years. Cardinal Gibbons is opposed to prohibitory laws, because they fail of their intended effect and create a general disrespect for law.

It does seem absurd to expect to destroy by legislation a desire for alcoholic beverages. It certainly seems unfair to deny a right to the many because weak individuals avail themselves of that right not wisely but too well.

It goes without saying that some legislation should be enacted to remove certain unpleasant elements in the liquor traffic. It is difficult, however, to specify just what should be done. The principal purpose, of course, should be to put the irresponsible dealer out of business, and to make character and responsibility qualifications for a license.

All branches of the liquor trade are now combining to formulate and put into effect general laws for the uplifting of trade conditions. It is confidently expected that this co-operation between the wholesaler and the retailer, the distiller and the brewer, all working together with those who have the cause of real temperance at heart, and not by the hypocrisy of prohibition legislation, will accomplish beneficial results.—Elmira, N. Y., Advertiser.

BIG FINE IN PENNSYLVANIA.

The Dairy and Food Department of Pennsylvania are rejoicing in the fact that John L. Lenderman, of Pittsburg, and N. E. Burns, of Mahanoy City, who were caught with a ton of oleomargarine colored to imitate butter, plead guilt in court on thirteen counts, and were sentenced to pay a fine of \$1,300 and costs of \$380, making the whole \$1,680. As soon as they had paid their fines and were released they were at once re-arrested by a United States marshal, who was waiting for them, with additional charges of violating a government pure food law.

HARPER CASE STILL ALIVE.

The Harper test case under the federal food and drugs act has not been finally disposed of.

A writ of error in behalf of Mr. Harper, who was convicted of a violation of the act in manufacturing and selling a preparation known as "Harper's Cuforhedake Brane Fude," has been granted by the District Court of Appeals, Washington, D. C. It will be remembered that Mr. Harper was fined \$700 on two counts for alleged misbranding.

The new trial will probably not take place before July and possibly not until the fall term of the court.—N. A. R. D. Notes.

SPECIAL REPORTS FROM KANSAS.

DISTILLED GRAIN VINEGAR.

Dr. Crumbine Puts His O. K. on Its Purity and Wholesomeness.

The Merchants' Journal has obtained from Dr. S. J. Crumbine an official approval of uncolored grain distilled vinegar, and when the chief food inspector of Kansas comes out over his own signature in any statement you know "it's so." Since the new pure food law forbids retailers selling colored grain distilled vinegar in Kansas on July 1st and already forbids manufacturers or jobbers to sell it, something had to be done to correct the erroneous idea on the part of the consuming public as to the purity and wholesomeness of water-white grain vinegar as a food product.

With this end in view, The Merchants' Journal addressed a letter to the Secretary of the Board of Health and Chief Food Inspector, and received a prompt reply. These letters are as follows:

THE QUESTION IS ASKED.

Topeka, May 26, 1908.

Dr. S. J. Crumbine, Secretary State Board of Health and Chief Food Inspector of Kansas, Topeka, Kan.

My Dear Sir: I believe it is due to the manufacturers of uncolored grain distilled vinegar who sell their product in Kansas that your department should issue a statement which would settle for all time the question of wholesomeness of this food product.

Tens of thousands of people in Kansas who know nothing about chemistry, but who are all users of vinegar, have conceived the erroneous idea that water-white grain vinegar contains injurious acids deleterious to health, and indeed even poisonous.

Because of this unfounded prejudice against a vinegar distilled from clean Kansas corn, which still exists among many Kansas people, will you please give me for publication your statement as to—

1. The wholesomeness of uncolored distilled vinegar.
2. Whether in your opinion it ever contains poisonous acids.
3. What the acetic "acid" in it really is.
4. Whether uncolored grain vinegar could injure the digestive organs used in the usual quantities.
5. Whether grain vinegar contains the essential properties for pickling purposes.

Trusting that I may have your reply at your earliest convenience, I am,

Faithfully yours,

CHAS. P. ADAMS,

Editor Merchants' Journal.

DR. CRUMBINE'S REPLY.

Topeka, May 26, 1908.

Mr. Charles P. Adams, Editor Merchants' Journal, Topeka, Kan.

Dear Sir: I have your letter of the 26th and note its contents. My own observations confirm me in the truth of your statement, that there are many people who have an entirely erroneous idea concerning water-white grain or so-called distilled vinegar. I therefore take pleasure in making reply to your questions.

1. As to the wholesomeness of uncolored distilled vinegar, will say that, in my judgment, it is as wholesome as any other vinegar that can be found upon the market.

2. As to whether it ever contains poisonous acids,

will say that I have never heard or read of a case where this vinegar contained any poisonous acids.

3. As to your question, "What the acetic acid really is," will explain that distilled or grain vinegar is made from clean sound grain, usually corn, which is ground and allowed to ferment and produce the so-called low wines or alcohol. These low wines are then passed through especially constructed generators and is made into vinegar by the alcohol being converted into acetic acid and this acetic acid is the same acid that is found in all vinegars and to which they owe their sour taste and pickling qualities. It is not the acetic acid of commerce which is usually made from wood.

4. You ask whether uncolored grain vinegar could injure the digestive organs used in the usual quantities. Replying will say that the acid principle being the same as that contained in cider or malt vinegar, its use will be unattended by any injury to the digestive organs when used in the usual quantities.

5. You ask whether a grain vinegar contains the essential qualities for pickling purposes. Will say that this vinegar is particularly adapted for pickling purposes, because of the absence of impurities.

Hitherto this vinegar has been colored with caramel coloring to make it appear or to be sold in imitation of cider vinegar, and thus its real merits have not been properly set before the consumer. Now that the law forbids the addition of color, naturally the people look upon this product, which is now water-white, with suspicion. There is no question but that this vinegar is a wholesome and meritorious product and should be sold entirely upon its merits.

Very truly yours,

S. J. CRUMBINE,

(Seal.) Chief Food and Drug Inspector.

THE GREAT EGG FRAUD.

The Sale of Rotten and Incubator Eggs in Kansas to Be Stopped.

That the State Food Department is about ready to take radical action to stop the sale of incubator and rotten eggs in the state of Kansas is given out pretty straight by the department in a statement made by Inspector J. A. Kleinhaus. The inspector stated that it is a practice of some farmers and chicken growers to market nest eggs, incubator eggs (which are taken from the incubator on account of showing after seven days that they are not fertile, and will not hatch), and to hold eggs at times for higher prices until they were stale and rotten, and would then market them for strictly fresh eggs.

The department will at once equip the inspectors with proper instruments for testing the quality of eggs being offered by the merchant in the different towns throughout the state, and it will take measures to prosecute any person selling, or attempting to sell, eggs misrepresented as to quality.

Mr. Kleinhaus mentions the practice of some merchants of holding eggs for a rise in the market and allowing them to deteriorate and afterwards selling them for "strictly fresh." There are others who chemically preserve their eggs, but the majority of Kansas people know the taste of real fresh eggs and would rather not have their eggs preserved by any process. They feel that the genuine article fresh from the nest, is unsurpassable and that age of an egg can be easily ascertained in more ways than one, no matter how

cunning the process by which an attempt is made to stay its approach to market or to prevent deterioration.

The department has had more complaints as to the quality of the eggs being offered for sale in the state than any other one food product, and it will be the duty of the inspectors hereafter to see that the law is enforced, and then the consumer will receive what he purchases.

The department no doubt will require cold storage eggs to be so labeled. The dealer should, in protection to himself, candle all his eggs and refuse eggs that do not stand the test. The state law is very plain, and in Section 7, under "Foods," reads:

"If it consist in whole or in part of a filthy, decomposed, tainted or putrid animal or vegetable substance or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal or one that had died otherwise than by slaughter."

The penalty to sell spoiled eggs would be "fined in a sum not to exceed fifty dollars, or be imprisoned in the county jail not exceeding one year, or be both fined and imprisoned, in the discretion of the court."

TO PROTECT KANSAS GROCERS.

State Gaugers to See That There Are No Short Measures in Barrels.

Owing to the complaints about short measurements in bulk goods, such as pickles, syrups, molasses, cider, vinegar and oil shipped to retail grocers the state pure food department has ordered a set of gauging sticks from the government and all the inspectors will be ordered to use them. Whenever a grocer believes he has a barrel of vinegar or oil that is short he can notify the department and a measurement will be made. While the inspectors are going over the state they will gauge all barrels of liquids to see that full measure is being given. If there are shortages of any material amounts the packers or jobbers will be required to label the net measure of all goods and allow overcharge.

RHODE ISLAND PURE FOOD BILL PASSED.

With all provisions relating to milk and cream stricken out, the Rhode Island Pure Food and Drug Bill became a law last week, passing the senate with amendments, which were concurred in by the house.

Governor Higgins immediately announced the appointment of the following commission to carry out the provisions of the new law: Peter J. Gaskin, druggist, of Cumberland; John E. Groff, druggist at Rhode Island Hospital, that city, and Bernard T. Lennon, wholesale grocer, of Pawtucket.

A further hearing on the provisions of the bill was given by the senate committee on judiciary, at which City Solicitor Albert A. Baker of this city, James O'Hare of the Rhode Island Pharmaceutical Association, Dr. Garner T. Swarts, secretary of the State Board of Health, and others objected to the act as it passed the house.

The bill came back to the senate with the changes already referred to, but leaving the enforcement of the law in the hands of a special commission as provided in the house act. The bill as amended passed the senate and was communicated to the house, by which it was passed in concurrence, nobody objecting, with the exception of Mr. Rattey of Central Falls.—Modern Grocer.

FATHER OF THE NEW OHIO FOOD AND DRUG LAW.

Senator D. W. Crist of Moultrie, Ohio, who introduced the latest pure food bill in Ohio and succeeded in seeing it a law of the state, should be known to a larger circle of pure food workers. We present his



HON. D. W. CRIST.

photograph in this issue and trust he will give our clientage a favorable opportunity to meet him personally.

COLORADO AFTER LOW GRADE ICE CREAM.

Six ice cream venders were recently cited by State Pure Food Inspector Cannon to appear before the State Medical Board to show cause why they shouldn't be prosecuted for violating the pure food laws. The hearing will be the first held under the department, and if the evidence submitted to the board is thought sufficient to warrant prosecutions of the men, District Attorney Stidger will be asked to file complaints against them in court. The outcome of both the hearing and the prosecutions to be started will be awaited with interest all over the state, it being somewhat of a test of the power of Mr. Cannon's office.

The technical charge against the six venders is selling ice cream which contains only 8.2 per cent milk fat, instead of 14 per cent, as required by law. The stuff they sell is said to taste more like frozen water than anything else. The venders are mostly foreigners and their wares are said to be manufactured under the most unsanitary conditions, against which, Mr. Cannon said, the public should be warned.

WHOLESALE GROCERS PASS RESOLUTIONS.

The resolutions as far as they pertain to the quality of goods are as follows:

* * * * *

Third. Whereas, at the call of the President of the United States, a meeting of the governors of the respective states was recently held in Washington and resulted in the establishment of the council of governors, and whereas in our struggle, during the past two years to procure the passage by state legislatures of food laws uniform with that of the United States, we have found that state legislators frequently failed to appreciate the need of the business community for harmony of action upon laws affecting matters of common interest, be it, therefore, resolved that the National Wholesale Grocers' Association hereby publicly acknowledge its appreciation of the great service rendered to the cause of harmony by state legislatures and ultimate uniform legislation on matters of common interests and by the President of the United States in calling together the governors of the different states and also expresses the hope and conviction that the council of governors will realize and employ the vast power and good that lies within its organization.

FAVOR UNIFORM STATE FOOD LAWS.

Fourth, Whereas, the National Association of Retail Grocers adopted at their last annual convention the following resolution:

Resolved, that the National Association of Retail Grocers urges upon all of the manufacturers of the United States, who market their goods under preparatory brands of trademarks, the wisdom of the policy of establishing and maintaining by contract a reasonable profit at which their goods shall be sold, such profit to be regulated according to trade conditions in the different localities. We are opposed to any prices being printed upon the package. Therefore, be it resolved that we express our approval and support of the policy as set forth in the above resolution and that a copy of this resolution be supplied to all manufacturers of proprietary brands in the United States.

* * * * *

Eighth. Whereas, the manufacturers, representatives in the different centers have formed an association for the purpose of correcting trade abuses with which they and ourselves have to contend, therefore, resolved, that we extend to them our best wishes for their success and assure them that we will be glad to co-operate in promoting all reasonable measures for our mutual benefit. Resolved, further, that we declare our loyalty to those manufacturers who recognize and adopt the wholesale grocer as the legitimate channel through which their respective products shall be distributed.

OPPOSED TO LABEL AND DATE LAWS.

Ninth. Resolved, that the National Wholesale Grocers' Association of the United States favors the adoption of uniform laws throughout the United States upon the subjects of food control, bills of lading, negotiable instruments and all other subjects of common commercial interest.

Tenth. As this is the first meeting of this association since the convention of representatives of the principal civic, commercial, industrial, banking and labor organizations of the country with prominent political and government economists under the auspices of the National Civic Federation in Chicago, in October, 1907, and whereas that important and representative gathering, after thorough discussion and consid-

eration, unanimously recommended the amendment to the Sherman anti-trust law so as to permit commercial agreements that are not in unreasonable restraint of trade, resolved, that this association, although not in favor of some of the provisions of the proposed Hepburn measure introduced at the last session of Congress to amend the Sherman law, nevertheless approves of the general recommendation of that Chicago convention.

Eleventh. Resolved, that we reaffirm our loyalty to the principles as set forth in our constitution and by-laws regarding free deals and we view with satisfaction the recognition of the justness of our position by those manufacturers who have expressed a desire to allow the jobber ample compensation for handling the same.

Twelfth. Resolved, that the National Wholesale Grocers' Association of the United States is opposed to the enactment by Congress or by state legislatures of measures requiring that the labels of food products of any kind shall bear the date of packing, a statement of the weight or measure, or a list of the ingredients and percentages.

Thirteenth. Resolved, that we individually and collectively express our profound appreciation and indebtedness to our distinguished guests, Charles H. Treat, treasurer of the United States; Dr. Harvey W. Wiley, chief of the Bureau of Chemistry, Department of Agriculture; Charles S. Vrary, president of the National Canners' Association, and James W. Wake-man, and many others, who have honored us with their presence and delighted us with their eloquence on the several able and instructive addresses with which we have been favored.

The resolutions were signed by W. C. McConaughey, chairman; C. M. McCarr, F. B. Milliken, J. W. Kelly and A. S. Oakford.

All the old officers were re-elected. The next convention will be held in Detroit, Mich.

OHIO GRAIN DEALERS IN COURT.

Magistrate McLaughlin in Cincinnati had before him this month several hay and grain dealers for alleged violations of the state law for failing to have tags on articles of concentrated commercial feeding stuffs as defined by the laws. The charges were brought on information furnished by Pure Food Commissioner J. D. Turner. In all there were 37 cases. The defendants were represented by Attorney Bert Simmons, who entered a plea of guilty. They were fined the costs. Commissioner Turner gave the dealers a brief talk on the law as information for the future.

He said the tags are for the purpose of letting the consumer know what he is getting. In one instance he cited where he ran across oil meal which was 16½ protein, when, in fact, it should have been 33 protein, the standard, and for that reason the consumer was only getting the half value for his money. The dealers claim the law is unfair to them, as under it they are required to tag the articles, while in fact the manufacturer should be licensed and made to place the tag on the inside of the bag. They also claim in many instances the tags tear from the bags. They will ask the legislature to change the laws so as to make the burden fall on the manufacturers. On the other hand all agreed in writing not to violate the laws as set out.

THE PROPRIETARIES FROM THE PHARMACISTS STANDPOINT.

BY CHRISTOPHER KOCH, JR.

Paper read at the Thirteenth Annual Meeting of the Pennsylvania Pharmaceutical Association, Bedford Springs, Pa., June 18-20, 1907.

“How long will this take, and how much will it be?” said Mrs. Brown, as she handed Mr. Druggist the following prescription:

R. Mr. Brown.
Rheumaticuss (New Chemical Co.)
Original bottle, remove labels.
Sig. A tablespoonful p. c.
 Doctor _____

The druggist took the prescription, and with, "One moment, Mrs. Brown," disappeared behind the counter (where he could better give vent to his feelings). It was another new proprietary, and he did not have it in stock. He looks over the latest price lists and finds that it is not listed. He calls up some of his brother druggists, on the 'phone; they never heard of it. It being Saturday night, he is unable to get it from the jobber until Monday morning. After spending 15 to 20 minutes trying to locate it, and the price of five or six telephone calls (the cuss words thrown in gratis), he calls up the Doctor—"The Doctor is out. Will not be back until Monday," is the reply coming from the other end of the wire.

Meanwhile, Mrs. Brown is fidgeting around and wondering what Mr. Druggist is doing, particularly since she saw two other customers hand in their prescriptions and get their medicine—all in ten or fifteen minutes.

In despair, Mr. Druggist comes forth and crouching-ly informs Mrs. Brown that he does not have one of the ingredients the prescription calls for, that he tried to get it, but he was unable to do so. On account of it being Saturday night, he could not get it until Monday morning. "Well, it took you a long time to find this out, Mr. Druggist. If the Doctor hadn't told me to be sure and come here, I would take the prescription elsewhere." The druggist shrugs his shoulders and says, "I'm very sorry, Mrs. Brown." "Well, get it and send it on Monday, I suppose Mr. Brown must have it. The Doctor told him it was very fine medicine. I'll pay for it now." "You need not pay for it until you get it, Mrs. Brown." "No, I want to pay for it now." Mr. Druggist is afraid to confess that he does not know the price, so he takes a chance. "It will be \$1.00." "My, that is high. It certainly ought to be good at that price."

At home Mr. Brown is patiently waiting for his medicine. Presently Mrs. Brown enters in a flurry. "Harry, can't get your medicine. Mr. Druggist didn't have ingredients or some such name, and can't get it till Monday." "Damn the druggist," says Mr. Brown. "Give me that bottle of liniment and I'll rub my leg some more."

Early Monday morning the druggist calls up his jobber. "Hello, have you got Rheumaticuss?" "Yes, just came in Saturday." "Get down 1-12th dozen. I'll send my boy right after it. Please give him a bill. Good-bye." When the boy returns, Mr. Druggist soaks off the labels, puts on his own, and sends it

around. The price on the bill is \$10.00 per dozen. Now, let us stop a moment to figure:

Cost of Rheumaticuss	\$0.84
Boy's time .....	.10
Car fare .....	.10
Six telephone calls .....	.30
	—
	\$1.34
Cost of doing business (25 per cent) .....	.35
	—
Total	\$1.69

The actual cost is \$1.69, not allowing one cent for time nor profit. Mr. Druggist congratulates himself that the prescription called for a full bottle instead of 4 ounces, and figures that he is still 40 or 50 cents ahead.

Now, to return to the patient. Mr. Brown takes his medicine faithfully, uses his liniment regularly, is dieting himself and resting. Of course, he improves—who wouldn't if he lived a natural life. He gives all the credit to that prescription.

"Say, Jennie, what is this name blown in the bottom of this bottle? Rheu-Rheu-Rheumaticuss, New Chemical Co. That's it. See if you can't get this at the Cuttem Cut Rate Drug Store. I think \$1.00 is too much for it anyway. Besides, I don't think I'll go back to the Doctor; if he prescribes this stuff, it must be all right, so what is the use of me paying him another dollar." He gets the second bottle from "Cuttem's Cut Rate Drug Store," and it costs him 90 cents. It has all the printed matter and advertising around it that the druggist has so carefully removed from the prescription. Mr. Brown eagerly reads every line of it.

"I thought the doctors didn't use patent medicines! Why, Jennie, look here, here are testimonials from eight different doctors. This certainly must be great stuff." The doctor having given it his O. K. by prescribing it, it never occurs to Mr. Brown to question any of the statements on the literature. He continues taking the medicine, for if "a little does good, more will do better," is Mr. Brown's theory. He recommends it to all of his friends, and presently "Cuttem's Cut Rate Drug Store" has quite a demand for Rheumaticuss. Mr. Doctor wonders why Brown never comes back.

After taking four or five bottles, Brown begins to have trouble with his stomach—food doesn't digest—in fact, his stomach is ruined from taking Rheumaticuss, which in all likelihood depends upon salicylates or iodides for its action. He goes back to his doctor to have his stomach treated. "It's an ill wind that blows nobody good."

Let us trace the evolution of an ethical proprietary (the only distinction between an ethical proprietary and a patent medicine is that the former is [or is supposed to be] advertised only to physicians—the patent medicine being advertised directly to the laymen. They are all protected by copyright or trademark, and are all of secret formulæ).

Having decided upon the character and formula of the article, the originator first coins a "catchy" name, which he registers as a trademark. He then gets busy with his imagination. "After long years of study and experiment (?), he gives to the suffering public (through the physician) the benefit of his labors," is usually the keynote of his advertising literature. He then tells us of the peculiar combinations and manipulations necessary to produce the preparation, or if it

be a so-called coal-tar synthetic or compound, he thrusts upon us a long series of hyphenated chemical synonyms and a graphic formula. Everything appears to be enshrouded in mystery. All this seems very imposing, but, as a rule, upon analysis, it becomes ridiculous. A legion of wonderful discoveries, heretofore unknown to therapeutics, are recorded, and a list of symptoms and diseases, in which the new proprietary is indicated, is then given. This is usually followed by testimonials from doctors who never existed; some few from physicians either too young or too old to know better, and some are paid for.

The advertising man now gets busy, placing this copy with the leading medical journals. If he be shrewd, he will insist upon reading notices, or "write ups" from time to time. These are so scattered throughout the magazines as to give the reader the impression of being inspired by the editor.

The detail man is now armed with samples of the preparation, copies of the literature, and a storehouse of information of his own. Off he goes.

"Good morning, Mr. Doctor, glad to see you this morning, etc., etc. I merely dropped in to call your attention to 'Rheumaticuss,' the new remedy for rheumatism, gout, etc. (No one but a detail man can fill in these gaps). It is free from any bad effects upon the stomach, and has been used extensively in New York with good results. Will leave you some samples—be glad to furnish more if you need them. Let us hear from you. Good-bye, Doctor. Oh! By the way, Doctor, I almost forgot to tell you. When you prescribe Rheumaticuss, always write for and insist upon getting the original bottle. If you write for less, oftentimes an unscrupulous druggist will substitute a cheaper or inferior article."

Ah! the cunning of the detail man! If he is to be believed, "Rheumaticuss" will revolutionize the practice of medicine. It surely is a wonderful preparation (probably yielding, upon analysis, salicylates or iodides and colchicum), and possesses curative properties unheard of in our modern text-books.

That little "by the way" of the detail man in reference to the druggist, shows his cunning and trickery. He takes a slap at the druggist to feather his nest.

All of the bottles of these proprietaries have their name and the name of the maker blown in the bottle. This is why they use a catchy name. (This is one of the best reasons for the scientific names of the U. S. P. given to the coal-tar products now official, but formerly marketed under catchy names). It is distinctive, and easy for the doctor to remember. It is also easy for the patient to learn, and this is the way that the physician becomes an unsuspecting tool in the advertising to the layman of the so-called ethical proprietaries.

The proprietor cares not one whit for the doctor, druggist, nor the patient, so long as his remedy sells. Two-thirds of the ethical proprietaries are sold over the drug store counter without a prescription, and the number is increasing daily. It is getting to be a common thing for the customer to tell the druggist that "the doctor recommended it to a friend, who in turn recommended it to me."

The methods of inveigling the physician into prescribing the remedies of certain proprietors are as dastardly, as despicable and ingenious. They will offer the physician a prescription pad with stub attached. Every time he prescribes one of their remedies, he makes a memorandum. When the total value

of the remedies prescribed reaches a certain fixed amount, the physician is allotted stock in the concern. Clever for the proprietor, but how about the physician who lends himself to such a scheme?

Let us take the statements of some of the popular ethical proprietaries and analyze them:

1st. Are they Ethical and marketed as such? Refer to the reprint of the report of the Council of Pharmacy and Chemistry of the A. M. A. Here you will find reproductions of ads, appearing in the newspapers, such as "Hydrozone," informing the layman how to avoid yellow fever; of Kutnow's Powder prescribed for the members of the Royal Family; of "Bioplasm," the wonderful remedy for locomotor ataxia, impotency, infantile indigestion, "consumption" and a host of other diseases; of "Santal Midy," which cures in 48 hours; of "Vin Mariani," which was formerly imported (?) but is now made in New York. Until we had the pure food and drug laws, it contained no cocaine; however, when this law went into effect, it became necessary to revise the formula.

2nd. Are they what they are claimed to be, and true to label? What does analysis show?

Antikamnia contains Acetanilid 68, Caffein 5, citric acid 5, soda bicarbonate 20 parts.

Ammonol contains Acetanilid 50, Soda bicarbonate 25, Ammon carb. 20.

Phenalgine contains Acetanilid 57, Soda bicarbonate 20, Ammon. carb. 10.

Salacatin contains Acetanilid 43, Soda bicarbonate 21, Sodium Salicylate 20.

Look over your text-books and see if such combinations are gifted with the wonderful properties which the detail men and advertising literature credit them.

Different combinations of the same proprietary with an added drug will give a different analysis. Antikamnia (plain) shows soda bicarbonate 20 per cent, Antikamnia and Quinine shows not even a trace of soda bicarbonate. And the wonderful chemical reactions which take place in the formation of these products, and the chemical synonyms with which they are burdened! Upon analysis all these claims fade into oblivion, and we have nothing left but what you will find in any standard text-book. Remove the mystery with which everything is enshrouded, and the deception is as clear as day.

3rd. Are they honestly priced?

Antikamnia, Ammonol, Phenalgine, Phenobrom, etc., cost about 5 cents an ounce to manufacturers; they retail for \$1.00. The bulk of them are priced from five to twenty times above a fair margin of profit. How could they be otherwise with the money expended for advertising and detail work?

4th. Are they uniform in composition?

Since the pure food law has gone into effect, most of the acetanilid mixtures have substituted phenacetin for acetanilid. Their literature has not been changed, nor has the physician been informed of the change of formulae. (I might add that Phenacetin was always available, had the proprietor considered quality above price). It is only since the patent on Phenacetin has expired and it has become greatly reduced in price, that it is taking the place of acetanilid.

5th. Are the published abbreviated formulae correct?

Take "Tyree's Antiseptic Powder," for instance. The published formula says that it contains sodium borate, alum, phenol, glycerin, the crystal principles of thyme, eucalyptus, gaultheria and mint. Upon analy-

sis it shows zinc sulphate, boric acid, and a trace of volatile oils.

The so-called cod-liver oil preparations (Haze's and Waterbury's) on analysis all fail to show cod-liver oil.

Can the doctor do justice to the patient in prescribing a proprietary?

Does he know what he is prescribing? Suppose that the patient has an idiosyncrasy for some drug. How is the physician to learn what it is, when he administers a remedy, the composition of which he knows nothing about? How many physicians realize that they were using acetanilide when prescribing Antikamnia, Ammonol, Salacatin, Phenalgine, Phenobromate, etc.; how many knew that Bromidia contained chloral, and Vin Mariani, Cocaine?

Has the physician a moral right to compel the patient to pay tribute to the charlatans who traffic in the suffering of humanity and who willfully misrepresent facts?

Has the physician the right to pile up the pharmacist's shelves with a lot of high-priced proprietaries of unknown value and composition?

I wish that you could see the pharmaceutical graveyard of a fair-sized store. It is a shocking example of a living truth.

The physician should not prescribe for the following reasons:

- 1st. They are of secret formulae.
- 2nd. They are not ethical.
- 3rd. They are not true to label.
- 4th. Their formulae are changed at the pleasure and whim of the proprietors.
- 5th. They are listed at extortionate prices.
- 6th. They destroy the confidence existing between the patient and physician.
- 7th. Many of them are unstable and soon deteriorate.
- 8th. They are not just to the physician.
- 9th. They are not just to the patient.

When a patient consults his physician, he places his life in the physician's care. He has absolute confidence in the physician's knowledge and ability.

Does the physician who toys with that life, by administering a proprietary of unknown composition, respect this confidence? (Statistics will show many deaths traced directly to the administration of various proprietaries). Is this a square deal? Does it not help to destroy that confidence when the patient learns that the physician is giving a patent medicine? "Why should I pay the doctor when he gives me only a patent medicine?" "I could get that without having to pay him for prescribing for me," is the patient's argument. Aside from the moral and ethical reasons, is it good business to take such a long chance for you "Never know when it is loaded," in a proprietary.

It is true that there are a few ethical and really meritorious proprietaries, but for the above named reasons, the physician who is conscientious and has his patient's as well as his own interests at stake, shuns them all. "What is secret is suspicious."

Now, for the remedy. The U. S. P. is the result of the highest type of pharmaceutical brains and skill. The National Formulary is published by the American Pharmaceutical Association, one of the oldest and largest Pharmaceutical Societies in the world. Both are recognized by the Federal Government and the various State Governments.

The preparations of the U. S. P. and N. F. are all

ethical, uniform, of superior quality, and the formulæ are open. They are all elegant pharmaceuticals, yet the patient is not required to pay tribute to a class of unscrupulous manufacturers. They all give results. Finally, they all have a legal standard, and if found wanting, the blame may be placed where it belongs.

THE GROWTH OF TYPHOID BACTERIA IN MILK

Secretary New Hampshire Board of Health:

In Dr. E. M. Sill's paper on "Sterilized Milk," reprinted in the February "Bulletin" from the "New York Medical Journal" of Feb. 8, 1908, occurs the statement that the cause of cholera dies in one hour after introduction into fresh cow's milk, the cause of typhoid fever within twenty-four hours, and other germs after varying periods; and that "in a few instances" the germs of typhoid fever, diphtheria and scarlet fever have been spread by milk. Lest these statements be held to reflect the views of the State Board of Health, it is deemed advisable to call attention to the fact that reproduction of an article on an important subject does not necessarily imply agreement with and approval of every statement therein contained, especially those which have no more than a remote relationship to the main subject, and also to present certain testimony concerning the bactericidal property of milk and the relation of milk to typhoid outbreaks.

In 1894 Dr. W. Hesse¹ carried out some experiments which led him to these conclusions: fresh, raw cow's milk is not a good culture medium for the cholera organism, but, on the contrary, destroys it. The destructive action begins immediately after the germs are added, and the process is almost without exception completed within twelve hours at room temperature and within six to eight hours at incubator temperature. It is not dependent upon the acidity of the milk nor upon the influence of the common milk bacteria and their products; it is the manifestation of a biological property which is destroyed instantly by raising the temperature of the milk to the boiling point. On the other hand, he found sterilized milk to be an excellent material in which to cultivate the germs.

These conclusions were directly opposed to those of a number of investigators, who had determined that the period of life of cholera bacteria in milk was from one to six days, and they were attacked at once by Dr. F. Basenau,² who said:

"Raw milk does not exert any destructive influence upon cholera bacteria, as is asserted by Hesse. On the contrary, they live in practically germ-free raw milk at least thirty-eight hours, and can multiply in it even until coagulation occurs, and at any temperature at which it can grow under any circumstances. In very dirty milk they can live at least thirty-two hours, both at incubator and ordinary temperatures, and they can be isolated in active condition even after the milk is clotted."

These conflicting views, and similar ones concerning other species of disease germs, have been the subject of numerous investigations concerning the actual existence of bactericidal properties in milk, which show that whether or not they exist, they are not lasting. According to Coplans, fresh milk kept at room

temperature is slightly bactericidal and absolutely inhibitory for six hours, and partially inhibitory for eighteen hours more; at 98.6° F. these periods are reduced to one and six hours, respectively. Koning says that the bactericidal property appears soon after the milk is drawn, and is especially powerful in colostrum; and that *Bacillus coli* and various other species are destroyed. In agreement with Koning is Hippus, who found that the action upon *Bacillus coli* and *Bacillus prodigiosus* is most marked during the first three or four hours, and thereafter gradually wanes, disappearing entirely in six or seven hours. He found that it was weakened by thirty minutes' exposure of the milk to 149° F., and by two minutes' exposure to 185° F., and was killed at once by boiling.

According to W. A. Stocking and H. W. Conn, the asserted bactericidal property may be explained by the fact that certain species of bacteria which find in milk no suitable food materials die out more or less rapidly, and others multiply. Kolle and others failed to detect any bactericidal influence so far as the colon bacillus, the typhoid and the paratyphoid germs are concerned, but found that the bacillus of dysentery was inhibited and cholera organisms were partially killed.

The experiments of Eyre are especially interesting. He inoculated fresh clean milk with culture of typhoid bacilli and saw the number per cubic centimeter fall from 78 to 42 at the end of four and six hours, and then increase to 46 at eight hours, 460 at twelve hours, and 6,000 at twenty-four hours. Thus it appears that the property was lost in four to six hours and was succeeded by a slow and then a very rapid multiplication of the bacteria.

The very careful experiments of Rosenau and McCoy led them to conclude that the diminution in numbers is apparent and not real, and due, at least in part, to agglutination. There is a real restraining action which persists for some hours, and for a longer time if the milk is kept at a low temperature.

With respect to the frequency with which typhoid fever is spread through the agency of specifically polluted milk it is necessary to cite only the fact that during recent years nearly every typhoid outbreak which has occurred in Massachusetts has been traced to it. Indeed, where public water supplies are guarded against contamination, polluted milk and other foods are the usual agents in disseminating the disease.

FAIR VALUE IN CANNED GOODS.

The visiting Englishman was surprised at the size of the orchards he saw in America. "What do you do with all the fruit?" he asked of a native. "We eat what we can and can what we can't," was the answer. The answer was to the point. Anything and everything that can be eaten in America is pretty certain to be canned in some way or other, in larger or smaller quantities, writes Dr. H. C. Stiefel in the Monthly Bulletin of the dairy and food division. Thus of tomatoes alone over 150,000,000 cans are packed annually. Corn demands 1,000,000 cans, and so on down through the entire vegetable kingdom. In meats we find every edible kind canned, the feathered world is well represented, while the ocean contributes well on to a dozen different kinds of canned food, from the kingly salmon down to the humble clam.

On the whole the packers give fair value for the price asked for their wares. This was shown by the analyses of a large number of samples of various kinds

¹Zeitschrift für Hygiene, xvii., p. 238.

²Archiv für Hygiene, xxiii., 1895, p. 170.

of canned vegetables and meats made for the dairy and food department by Dr. Stiefel. Tomatoes and corn, for instance, were packed solid without excessive water, the same with beans, peas, etc. In no case was any artificial coloring matter found; the tomatoes had their natural color, beans and peas were not greened artificially, and but one sample of corn was found that had been bleached by the use of sulphur. The artificial sweetener, saccharine, and the preservatives, salicylic acid, benzoic acid, etc., were not present in a single instance. The canned meats were without borax and true to name, with but one exception, a canned potted ham containing $4\frac{1}{2}$ per cent of starch. Starch was also present in varying quantities in the different "pates" and "loafs," but these two designations are like charity, they can cover a multitude of sins. A "pigeon pate" may contain more of the pigeon or more starch just as the packer sees fit to manufacture, while "lamb loaf" may contain much starch, more water and just enough lamb to entitle it to the name. A Vienna sausage may be composed of starch, water and meat in any proportion desired by the packer.

NEW FOOD LAW FOR OKLAHOMA.

Modeled after the federal pure food law and deemed by many to be a more protective measure in some ways, the house passed the committee substitute for the Bryan and Williams' bills, creating a pure food, dairy and drug commission for the state of Oklahoma, prescribing its duties and powers, regulating the manufacture and sale of foods, and carrying an appropriation of \$5,000 to be used in putting the law into effect. This appropriation was cut by the house from \$10,000.

No changes of importance were effected in the bill, although owing to its length and detail, it was necessary to spend practically the entire day in its consideration. The pure food, dairy and drug commission is to be composed of the president of the board of agriculture, the secretary of the state board of health and the secretary of the state board of pharmacy. Other position created, all appointive, are the drug inspector, food inspector and dairy inspector, all to work under the direction of the commission.

Monthly reports of the work of the commission are to be made to the governor, setting forth the number of inspections made, foods, etc., analyzed and the cases of adulteration found. For his services, the secretary of the commission will receive \$1,800 per year and traveling expenses and will be authorized to employ a stenographer at \$75 per month. The other members of the commission will receive \$5 a day for time actually engaged, together with necessary traveling expenses. The inspectors will receive \$3 per day while working and their expenses.

Two laboratories for analysis of foods, dairy products and drugs will be maintained, one at Norman, the other at the Agricultural and Mechanical College at Stillwater.

Standards of purity are fixed by the bill for cream and milk and the methods of making tests prescribed.

Adulteration of milk is made a misdemeanor, as is the removal of cream from milk without labeling the cans containing the less rich residue, "skimmed milk."

Persons manufacturing imitations of dairy products must secure license from the state at a cost as follows: For manufacturing imitation butter or cheese, \$50; for dealing in imitation butter and cheese at wholesale, \$25; for dealing in the above at retail, \$10; from each creamery or cheese factory an annual fee of

\$5 will be collected and from each person engaged in testing cream or milk for commercial purposes, \$1.

Food packages must be labeled with the name of the manufacturer or jobber, under an amendment offered by Dr. Sands.

ANALYSIS OF LAKE MICHIGAN WATER.

The first of a series of chemical and bacteriologic examinations of the Lake Michigan water before it reaches the tunnel intakes at the various cribs has just been completed by the Chicago health department.

Beginning opposite the Four Mile crib samples were taken six feet below the surface every mile up to the mouth of the river, and in the river up to the Madison street bridge. The results of the examinations of these samples are as follows:

Four miles out there were only 11 bacteria per c. c.; no colon bacilli.

Three miles out there were 15 bacteria per c. c.; no colon bacilli.

Two miles out there were 50 bacteria per c. c.; no colon bacilli.

One mile out, opposite the lighthouse, there were 200 bacteria per c. c.; no colon bacilli.

At the mouth of the river, opposite the life saving station, there were 280 bacteria per c. c.; no colon bacilli.

Sewage empties into the river from a point east of Rush street. Its effects are seen in the following figures:

At Rush street bridge, 2,800 bacteria per c. c.; many colon bacilli.

At State street bridge, 3,060 bacteria per c. c.; many colon bacilli.

At Fifth avenue bridge, 3,500 bacteria per c. c.; many colon bacilli.

North of Madison street bridge, in the south branch, after mixture of the water with that of the north branch, 18,200 bacteria per c. c.; many colon bacilli.

The chemical examination shows that in none of the lake samples, up to the mouth of the river, is there any free ammonia present. The albuminoid ammonia averages .006 parts per 100,000. At the mouth of the river it is .008 parts per 100,000. The oxygen consumed gradually increases from .135 four miles out to .185 at the mouth of the river.

The free ammonia increases from Rush street bridge, where it is .002, to .040 at Madison street. The albuminoid ammonia increases from .008 to .020. The oxygen consumed increased from .195 to .550.

Samples of water taken from outside the Carter Harrison crib and from the well inside the crib show that there were many more bacteria in the water of the well inside the crib than outside, and in one of the samples taken from the crib well colon bacilli were found. As no colon bacilli were found in any of the lake samples taken outside of the cribs, it is evident that they come from the inside of the crib.

It was noted that there were many small fish in the well of the two mile crib that were killed as a result of being caught by the current and pressed against the intake gate. At the four mile crib there were not near so many. Examination of some of these fish is being made to determine whether or not they were the cause of the increased number of bacteria and the presence of the colon.

From these experiments, although a sufficient number have not yet been made upon which to base final

judgment, the department concludes the drinking water supplied to citizens, if contaminated at all, is contaminated in the mains or in the houses by defective plumbing.

The present current in the river is shown from the experiments to be sufficient to prevent any sewage from the river getting into the lake under ordinary conditions.

These investigations will be continued with an idea of ascertaining the exact sanitary character of the city water at all times. The researches will be as exhaustive as possible, and will cover a period of six or eight months before they will be completed.

DISTRICT OF COLUMBIA FOOD REGULATIONS HELD NULL AND VOID.

The pure food law of the District of Columbia was held invalid by Judge Mulloony of the police court in Washington, June 4, on the grounds that it is in conflict with the national food and drugs act of 1906. The court held that all prosecutions against dealers in adulterated food should originate in the Department of Agriculture.

In the act of 1898 health officers were empowered to analyze samples believed to be adulterated. These samples were to be held by the chemist of the health office thirty days, in which time the defendant could make application for portions of the same to have an analysis made by his own chemist.

In the act of 1906 all samples and articles on which prosecutions are to be based must be collected by inspectors of the Agricultural Department and the district health officers, and turned over to the bureau of chemistry of the Agricultural Department for analysis. If analysis discloses a violation of the law, the Agricultural Department must notify the United States district attorney, who shall bring the suit.

Prior to the passing of the act of 1906 prosecutions under the pure food law were wholly in the hands of the district health officers. Since the passing of that law both the Department of Agriculture and the health officers have been making analyses and bringing suits.

Judge Mulloony held this practice illegal, as it made it possible for both the Department of Agriculture and the district health officers to prosecute a defendant for the same offense.

There being a conflict of the laws, Judge Mulloony held the later law repealed the former act, and that health officers had no authority to analyze samples and begin prosecutions.

Many convictions have been obtained by the health department since the law went into effect in 1906, but the question raised had never before been presented. If the decision is sustained all persons who have paid fines on conviction by the health department will be entitled to recover.

CHICAGO HEALTH DEPARTMENT ALIVE IN CRUSADE AGAINST UNCLEAN FOOD STUFFS.

Chicago city food inspectors report seventy-one groceries and markets in bad sanitary condition. They have also investigated numerous ice cream factories and found many of them very insanitary—in newspaper phrase, "reeking with filth."

Sanitary inspectors are enforcing the rule of the department in regard to the manner in which foodstuffs

may be exposed for sale. This rule is that no fruits, vegetables, candies or other articles of food, except those contained in tight and covered boxes or barrels or other original packages, shall be exposed on the street for sale or for other purposes unless they are kept at least two feet above the level of the street or sidewalk. All candies, berries, grapes, peaches and other fruits commonly eaten without previous paring or washing must be protected from flies and dust while offered for sale.

An inspector has also been detailed to the fruit auction market, at which place a large quantity of the fruit consigned to the city is distributed to wholesale dealers. This inspector holds for salvage all packages containing more or less decayed fruit. The fruit thus held must be sorted before it can be sold. If this order is not complied with the entire lot is condemned and destroyed by the department.

THE GERMLESS KISS

The druggist is going to profit by the promotion of germless kissing as outlined by Dr. Eugene Underhill at the commencement exercises of the Philadelphia School for Nurses:

"In the future," said Doctor Underhill, "everybody who wants to indulge in kissing will be required to obtain a permit from the Board of Health. The Board of Health will require them to register. Then the young persons, duly registered, instead of kissing in the old-fashioned, Fourth of July, spontaneous combustion way, will act quite differently. 'I'm going to kiss you,' the young man at the far end of the sofa will say. And the maiden will purse up her lips. Then from the inside pocket the young man will produce a brush and a bottle of collodion.

"He will first carefully paint the maid's lips and then his own. Hesitating a moment to fan the collodion until it is thoroughly dry, he will then implant a chaste, non-microbe, Board of Health approved, sticky salute. The kiss of the future will not be a hasty affair, to be filched with rapidity. It will be a slow, scientific process, guaranteed free from all dangers of contagion and disease."—The Pharmaceutical Era.

COLLOIDS FOUND IN ICE CREAM.

The Albany news bureau man who manufactures sensations for the newspapers of the Empire State has "discovered" another horrific ingredient of the ice cream that is served to a too confiding public. It is colloids. Frightful stuff, colloids! Fattening, no end, and warranted to bring the strongest man to death's very door in short order! Crime to use 'em, but they swell up the ice cream—fatten it, you know—and unscrupulous manufacturers take chances for the sake of the immense profits. Law is after the inhuman wretches, and will put 'em behind the bars as fast as they are caught. Colloids, awful things—and they feed 'em to children! Colloids, mind you. Aren't they the devils?—Ice Cream Journal.

PHYSICIANS AGAINST PATENT MEDICINE.

The homeopathic physicians, in session in Dayton, Ohio, passed a resolution favoring a modification of the Ohio food law to some extent whereby it could be made more stringent, and that more articles, not now on the list, be added. The society desired that the law be more effective regarding the manufacture and sale of patent and private medicines, and that it be made more clearer.

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DECISION LEGALIZING COMMISSIONERS RULINGS.

The recent decision of the United States Circuit Court of Appeals, Sixth District, in the case of the Coopersville Co-operative Creamery Company, of Coopersville, Michigan, is important to food commissioners as throwing judicial light on a very dark subject—the power of an official charged with the enforcement of law to make arbitrary rulings with the force and effect of law.

The Coopersville Co-operative Creamery Company, of which Mr. Colon C. Lilly, assistant dairy and food commissioner of Michigan, is manager, was assessed \$1,620 by the Internal Revenue Department for selling butter containing over 16 per cent of moisture. The revenue law of 1892 defines adulterated butter, but fails to limit the moisture content, yet classes as adulterated "any butter in the manufacture or manipulation of which any process or material is used with the intent or effect of causing the absorption of abnormal quantities of water, milk or cream." The Internal Revenue Department made a rule that butter containing over 16 per cent of moisture would be classed as adulterated, and, therefore, subject to the 10c tax.

The court, while admitting that Congress cannot delegate legislative authority to any executive official, and that to do so would be destructive to our whole system and scheme of government, yet decides that in this instance the Internal Revenue Department was not exceeding its powers. The court refused to consider the question as to whether 16 per cent and over was an abnormal quantity of water, claiming that was a question of fact.

The case of Bullfield & Stranahan, endorsing the validity of the acts authorizing a board of experts to fix tea standards, was quoted in support of the decision as given.

It must be admitted that the power to make arbitrary rulings is convenient in this instance. If the butter contains 16 per cent of water, it is abnormal and therefore must have been caused by a process of manipulation. The act of 1902 was intended to drive oleomargarine from the markets by putting a supposedly prohibitive tax of 10c a pound on colored oleomargarine. The revenue officials were not given any opportunity to lower or raise the rate of tax. This was apparently an oversight, as if the amount had been left blank, when butter soared to 45c per pound last winter the Internal Revenue Department might

have increased the tax to 20c per pound and still keep oleomargarine out of competition with butter. However, the butter market may be influenced in another way, which will materially increase the revenues of the department and oddly enough increase the production and consumption of oleomargarine. With a 16 per cent water standard, but few butter dealers will qualify for the 10c tax and they much to their sorrow and chagrin. By lowering the percentage to 14 per cent, however, much of the best butter will be included and several large creameries may be willing to pay the tax to supply their patrons with an appetizing article. By still further reducing the amount to 10 per cent, the Internal Revenue Department can compel practically all butter dealers to pay the 10c tax, as is levied on butterine, while uncolored butterine would have to pay but one-quarter cent per pound, thus completely reversing the intent of the law which was to build up a butter trade at the expense of oleomargarine. By this little "legal" ruling, a palatable grade of colored oleomargarine may be placed on an equal price footing with a low, greasy grade of colored butter and the uncolored oleomargarine have a clear lead of 9½c over uncolored butter. And if this condition were not wholly satisfactory to the oleomargarine interests, the percentage of water could be reduced to 8 per cent and leave no untaxed butter on the market. In the language of the small boy, there are various ways to remove the corium from a canine, especially with the aid of the circuit court.

The regulation of the Internal Revenue Department of 16 per cent water in butter is not an unreasonable one for taxation or prosecution purposes. It is unfortunate that it was not incorporated in the law. That is, it would have been unfortunate if under the ruling of the courts, the officials were not permitted to correct or amplify or nullify any provisions of the law which the lawmaking body may have overlooked or not securely fastened down.

WHISKY DECISION IN TRADE MARK CASE.

A good deal of publicity has been given a recent decision of the Court of Appeals of the District of Columbia, in which the definitions of whisky framed by Attorney-General Bonaparte were upheld as applied to the case under advisement. It was loudly proclaimed by Dr. Wiley's liquor organ before the opinion became public that the courts had upheld Dr. Wiley's interpretation of the Pure Food Law as regards the definition of blends of whisky. The newspapers, misled by reports from Washington, generally commented on the subject to the effect that the long continued controversy was practically settled.

It is now disclosed that there is no connection between the decision of the Court of Appeals of the District of Columbia handed down in the case of the ownership of a trademark by N. M. Uri & Co., of Louisville, and the pure food laws which have been variously construed in the matter of branding and labeling of whisky.

The decision was rendered in conformity with the laws governing patents and trademarks, and the pure food laws were not considered by the court nor were any of the rulings of the Treasury Department or the Department of Agriculture which have been made with respect to the pure food laws.

The case is one in which the matter in dispute was the ownership of the "Brookwood" trademark. The decision against Uri & Company, who claimed ex-

clusive right to the name, is based on that portion of the patent laws governing trademarks which forbid misrepresentation of the goods sold under it in the wording of the trademark.

The court said in this case: "The record conclusively shows that the applicant, Uri & Co., was not entitled to the exclusive use of the mark because of misleading and deceptive statements contained on their label. It was the purpose of the act to protect honest manufacturers and dealers, because in so doing the public would in turn be protected. It was not the purpose of the act to recognize the right of any person, firm or corporation, to deceive the public."

The misrepresentation in the opinion of the court was in the use of the words, "pure old rye whisky" to describe a mixture of three different kinds of rye whisky, Bourbon whisky, neutral spirits, caramel flavoring and prune juice. The question of "like substances" or any other definitions or rulings by Secretary Wilson, President Roosevelt or Secretary Cortelyou did not enter the case.

The only reason for confusing the case with the pure food laws is that the Commissioner of Patents had decided the case in favor of Uri & Co., in effect permitting them to brand a mixture of whiskies neutral spirits and other substances as whisky, while such mixtures under the pure food law must be labeled so as to show the actual contents.

The decision can have no more effect on the whisky business in general than could a decision in any other trademark case. It is one that, while it happens to be in line with the pure food laws, is not in any way connected with them, nor could it be cited to support a case brought under them except in that it is based on the principle that the government will not be a party to or countenance the deception of the public.

WESTERN MANUFACTURERS TAKING ADVANTAGE OF NON-ENFORCEMENT OF LOW CONDENSED MILK STANDARDS.

Report comes from the east that some well known manufacturers of condensed and evaporated milk and cream have in the last few months taken advantage of the indefinite position assumed by the food law authorities in Washington as to standard of quality and composition is the statement made on authority here. It is averred that the standard set by the United States Department of Agriculture under the supplemental proclamation superceding circulars Nos. 13 and 17 relative to standards of purity for food products has been robbed of effect by resolutions adopted by the joint committee on food standards meeting at State College, Pa., on March 16 last.

The standard set in circular No. 19, issued in June, 1908, contained the following standard for condensed and evaporated milk products:

"Condensed milk, evaporated milk, is milk from which a considerable portion of water has been evaporated and contains not less than 28 per cent of milk solids, of which not less than 27.5 per cent is milk fat.

"Sweetened condensed milk is milk from which a considerable portion of water has been evaporated, and to which sugar (sucrose) has been added, and contains not less than 28 per cent of milk solids, of which not less than 27.5 per cent is milk fat.

"Condensed skim milk is skim milk from which a considerable portion of water has been evaporated."

The action taken by the joint committee on food

standards leaves the way open for the manufacture of a low grade product.

"Whereas, the joint committee on food standards of the Association of Official Agricultural Chemists and the Association of State and National Food and Dairy Departments at its meeting at Louisville Dec. 11, 1906, upon further consideration of the subject of condensed milk, adopted the following resolution:

"That the subject of suggested changes in condensed milk standards be left open for future consideration, pending further investigation, and that the secretary of agriculture be requested not to enforce the present standard in respect to total solids in cases where the solids are below 28 per cent."

"Resolved, that the above resolution be and hereby is reaffirmed with the recommendation that pending further investigations the various state authorities do not enforce the aforesaid standard in respect to total solids where the milk fat found in condensed milk is not less than 7.7 per cent, and that the chairman of this committee be instructed to send copies of this vote to all officials charged with the enforcement of food laws in the several states."

This report was signed by William Frear, chairman of the committee, and reinforces the position taken by the standard committee in session in Chicago the first of the year. It is pointed out that the recommendation relative to the non-enforcement of the standard previously adopted is what has brought about a marked increase in the production of low grade condensed milk. It is said that some of the products of well known western condensed milk companies show as low as 6½ per cent butter fat and 22 per cent of solids. The companies whose product show the low percentages in most instances are small concerns, but there are several companies doing a large business who are transgressors. The inactivity of local food officials, it is said, is responsible for failure to bar the sale of the low grade products.

The condensers have attempted to find out from the officials at Washington what construction is to be placed on the action of the food standards committee as indicated in the State College report. So far they have obtained no satisfactory reply. The indefinite position of the food law officials has opened the way for unfair competition. Small concerns have entered the market and having no reputations to lose have pushed the sale of the low grade product to the detriment of the larger concerns which are making milk that runs higher than the standard fixed by the standard committee and proclaimed by the secretary of agriculture. The cheap, low grade stock is offered at low prices, and the apparent immunity from prosecution has encouraged new ventures in the business.

EIGHTH ILLINOIS REPORT.

The eighth annual report of the State Food Commissioners of Illinois has just been received from the printer. The report covers the work of the Illinois Food Commission for the year 1907. We have already published the report of Commissioner Alfred H. Jones to the Governor and also a portion of the report of the state analyst in previous issues of this Journal. In the eighth annual report, each of the nine inspectors as well as the chemist and assistant commissioner make a written report to the State Food Commissioner. We will reserve a more extended review of this report for another time but will reproduce the perora-

tion of the assistant commissioner and also of the chemist as containing a splendid bit of advice and as illustrating the old saying that great minds run in the same channel.

READING LABELS.

In conclusion I wish to call attention to the fact that it is reported that great numbers of consumers do not read the label on the goods they buy; that they know but little more about the goods than if they were not labeled at all. Just why we should issue "preachment" after "preachment" about labeling correctly it is difficult to understand, if the public does not read the label, unless it be in the faith that perhaps, after all, more read the label than we think or know of.

Respectfully submitted,

H. E. Schuknecht,
Assistant Commissioner.

Statements on the label giving the name and amount of preservative used or announcing the presence of *artificial color, alum or saccharine* are usually in smaller type and will often be *overlooked unless all of the label is read*. The importance of knowing of the presence of these substances is shown in this report under *Preservatives and Color* and in bulletin No. 9. If the house wife wants to know what she and her children are eating, she must *read the label and read all of it*.

Respectfully submitted,

T. J. Bryan,
State Analyst.

Mr. Schuknecht takes the first fall out of the idea by virtue of the precedence of his report in the book, but Dr. Bryan nothing discouraged makes up for the disadvantage of position by the free and liberal use of italics.

COMMISSIONER WRIGHT ALSO AFTER SOFT DRINKS.

H. R. Wright, food and dairy commissioner of Iowa, is getting after the "soft drink" manufacturers to see how closely they conform to the state pure food law. The various kinds of drinks sold in the state are being put through the chemical test in the laboratory to see what they contain.

There have already been some surprises. For instances, Prof. Chittick completed an analysis of some hard cider and discovered that it had 4 per cent of alcohol in it, which is nearly as much alcohol as is contained in standard beer. The man who sold the cider ran a grocery in an Iowa town and the cider was sold there. He was notified at once by 'phone that he must desist or the temperance people were likely to get after him.

Mr. Wright has discovered that there are great quantities of "soft drinks" of a particular kind being sold in the state in the small towns and out-of-the-way places where soda fountains are too expensive to keep. These soft drinks are put up in bottles the shape of beer bottles, but smaller. The label advertises the drink as being cooling and healthful and "strictly temperance." An analysis in the laboratory of the pure food department has disclosed 2 per cent of alcohol.

Commissioner Wright, after an investigation of the statutes, finds that intoxicating liquors are prohibited by law and the law defines an "intoxicating liquor" as being a beverage containing alcohol. The law does not state any particular percentage of alcohol and the courts have upheld this. Commissioner Wright is

therefore notifying some of the food dealers of the state that while some of their "soft drinks" have not been found to be in conflict with the pure food law they do conflict with the mulct law, and while he does not say that he will not make it his business to prosecute them, he gives them to understand that they are liable to prosecution if anyone cares to file a charge against them.

CORN SUGAR VINEGAR CASE IN MISSOURI.

Early in May, Food Commissioner Washburn, of Missouri, served notice upon the Emrich Vinegar and Pickle Company, of Kansas City, Mo., that their vinegar, made from corn sugar and sold as "Corn Sugar Vinegar," was sold in violation of the State law, in that it was claimed the vinegar was artificially colored. A hearing was held subsequently in Kansas City, at which the fact was brought out that the Emrich company did not add any artificial coloring to the vinegar, but what color the vinegar possessed was due to the sugar employed in its manufacture. It was then alleged by Commissioner Washburn that the sugar was purposely caramelized so as to impart to the vinegar made from it a color resembling that of cider vinegar. After the hearing the Emrich company was advised by Commissioner Washburn that on May 20th he would seize all corn sugar vinegar manufactured by them and stored in their warehouse, and dispose of it according to the law. A preliminary injunction was secured by the Emrich company restraining the Food Commissioner from making this seizure. This preliminary injunction was issued by Judge McCune. Later a change of venue was taken to Judge Parke and the taking of depositions ordered by the latter. In accordance therewith these depositions were taken in Kansas City on June 3rd and the fact was clearly brought out that the corn sugar employed by the Emrich Vinegar Company was not artificially colored, but was in every respect a natural product, and the color it possessed was due to the process of manufacture. The case is now pending before Judge Parke and an early decision is expected.

WYOMING SYRUP CASE.

The case brought by Food Commissioner Burke of Wyoming against T. H. Weeden of Clearmont, Wyo., was tried before Judge Parmelee in the District Court at Sheridan on Wednesday, June 10, and decided in favor of the defendant.

The case arose on some syrup manufactured by the D. B. Scully Syrup Company of Chicago, which was labeled and sold as a blend of maple syrup and rock candy syrup. The food commissioner claimed that it was not legal to sell it as a blended syrup under the Wyoming food law unless the per cent of each syrup in the blend was stated on the label. This has been the food commissioner's claim ever since the last food law was passed in his state in 1907, and he has been compelling all dealers to live up to his interpretation of the law and state percentages on their labels on all mixtures or compounds.

The D. B. Scully Syrup Company and other syrup firms, on the advice of their attorney, Mr. Thomas E. Lannen, refused to accept the commissioner's interpretation of the law as being correct, and shipped blended goods into the state without stating percent-

ages, and otherwise properly labeled, and the prosecution against Weeden was the result.

The finding of the court was that the Wyoming food law does not require percentages to be stated on blended syrups when they are plainly labeled to show that they are blends and are not sold as straight syrups.

The food commissioner may appeal the case.

VALUE OF MAY MEAT EXPORTS.

Below are given exports for May, 1907, as compared with May, 1908:

	1907.	1908.
Corned beef	\$ 104,000	\$ 219,000
Cured beef	278,000	197,000
Bacon	1,514,000	1,856,000
Ham	2,181,000	1,836,000
Cured pork	1,282,000	617,000
Lard	4,437,000	2,958,000
Olive oil	1,829,000	1,430,000
Oleomargarine	28,000	21,000
Butter	77,000	113,000
Cheese	176,000	154,000

These figures compiled by the U. S. Department of Commerce and Labor indicate that our foreign trade in manufactured meat and dairy products is still declining. Butter indeed picked up a very little in the month of May, 1908, compared with May, 1907, but the entire year shows only one-half the value of the exports of 1907, which were a miserable remnant of what they were before the muckraker, in utter disregard for the industry on which rests the foundation of our prosperity, reached the farthest hamlet in foreign countries with his dirty and in general false denunciation of American manufactured meat products.

ATTEND THE NEXT CONVENTION.

It is none too soon to commence making plans to attend the convention of the Association of State and National Dairy and Food Departments, to be held in Sault Ste. Marie next August. August is a hot month in the temperate zone. Just the time of year to give yourself the benefit of a little vacation and enjoy for a few days the climate of northern Michigan. Inhale the ozonated breath of three of the greatest inland seas in the world and the softly medicated air from the still virgin pine forests. Hold Commissioner Bird to strict account for the absence of mosquitoes which he says at this time of the year vacate the vicinity of Sault Ste. Marie. The temperature, the climate and all the external aids to comfort will be in pleasing contrast to the last convention; the cost of a square meal will be within the means of a millionaire's pocketbook, and the knowledge to be gained will fully compensate for the expense of the trip. Besides, the opportunity to renew friendship and acquaintances will be welcomed by every worker for pure food. A pleasant, profitable and harmonious meeting is anticipated.

A NEW BROOM SWEEPS CLEAN.

The Kansas Board of Health has just completed the inspection of all the flour mills of the state, this being a big task, as Kansas is the second largest flour milling state in the Union, having 276 flour mills. While the milling of wheat, done as it is entirely by machinery, offers little opportunity for adulteration or fraud, and the nature of the goods demanded—purest white—preclude the possibility of dust and dirt contamina-

tion of the flour, still there are some opportunities for substitution and also the use of inferior grades of wheat, and no doubt state supervision of this industry as regards sanitation and quality of flour will prove beneficial to the people and the flour industry. Then, too, Kansas has a net weight law, and all full sacks of flour for Kansas trade must contain 98 pounds; half sacks, 48 pounds, and quarter sacks, 24 pounds net weight flour. The millers are said to be very much in favor of the law and its rigid enforcement, as it puts all on an equal basis.

SERVING TWO MASTERS.

Prof. E. H. S. Bailey of the Kansas State University, has been designated to do government work in the state laboratory. Prof. Bailey is a good chemist, a talented teacher and a pioneer in pure food agitation. In our opinion, however, he should work exclusively either for the state or the government, and not attempt to draw two salaries. This is a species of graft that Hoar, Tawney, Cannon and Allison have endeavored, with some successes and more failures, to eradicate, and although not in this instance specifically forbidden by the national laws, due to the efforts of a one-man organization, which raised a fictitious hue and cry that the Tawney amendment was aimed to imperil the Food and Drug Act, nevertheless, public opinion and the laws of most commonwealths will not sanction one man serving two masters.

MEATS PURE AND WHOLESOME.

A conference of the men in charge of the inspection of the meat supply of the country was held in Chicago June 1. The officer on whom final responsibility for this work rests, the Hon. James Wilson, secretary of agriculture, was here in person and after hearing the reports of subordinates visited and inspected the Chicago stock yards, and after the most careful scrutiny said that in his opinion the standard of foodstuffs produced by American industries was never higher than at the present time.

The laws governing the manufacture of foodstuffs and calculated to insure absolute cleanliness, Secretary Wilson says, are wholly adequate to the demands and are being lived up to in spirit and letter by both the manufacturers and the inspectors whose duty it is to see that the laws are obeyed.

A WHITE LIST.

Terre Haute, Ind., ladies are preparing a "White List," consisting of merchants who in the sale of food comply with the food laws. Dr. John Owen, a deputy state food inspector, has promised to assist in preparing the "White List." Mrs. W. W. Parsons, chairman of the committee on pure food of the State Federation of Women's Clubs, is a leader in the movement. The club members have signed a pledge to buy only of merchants who display a white card. Each member is expected to get signatures of other women not club members to make the list more effective. The list will be published June 15th. We predict trouble.

COMMISSIONERS VISIT CHICAGO

Commissioner H. R. Wright of Iowa and Commissioner A. H. Wheaton of South Dakota are in Chicago for the purpose of testifying before the Interstate Commerce Commission regarding the proposed ad-

vance on railroad cream rates. The present rates, it is claimed by Commissioners Wright and Wheaton, are driving the small creameries and the farmers co-operative creameries out of business to the advantage of the butter trusts.

WRONG CREDIT GIVEN.

Farrington and Wolls' latest edition of their valuable text book on "Milk and Milk Testing" contains two articles in full from the American Food Journal. One is credited to this journal all right, but the other, undoubtedly through an oversight, is credited to the Chicago Health Department Report, whereas the article was originally written for the American Food Journal and first published in this paper.

FOOD NOTES

A. R. Lewis of Morrison, Ill., has been lately appointed an inspector for the Illinois Food Commission. His particular duties will be to look after dairy products and assist the other two stock food inspectors to purchase samples of the 40 odd brands of proprietary stock foods sold in the state. His salary is \$100 per month.

* * *

About 60 firms were cited to appear before the California Board of Health last month, most of whom, it is claimed, violated the food law in selling soft drinks colored with coal tar dyes other than the seven sanctioned by the state. Professor Jaffa performed the analytical work for the Board of Health.

* * *

In the progress of the litigation over the sausage cases in Michigan, Prosecuting Attorney Carney has refused to summon witnesses outside of Kalamazoo county unless the state will stand for the expense. Attorney General Bird threatens his removal from office.

* * *

An interesting interpretation of Indiana law occurred in a case in South Bend where the court held that the law held the servant or agent but did not hold the proprietor. Five cases against local dealers were thereupon dismissed.

* * *

Dairy and Food Commissioner Foust of Pennsylvania is the first to announce that he will attend the national convention of the dairy and food commissioners to be held at Sault Ste. Marie, Mich.

Rock Island, Illinois, has adopted an ordinance prohibiting the sale of fish not properly drawn and cleaned. Some complaint in regard to unclean fish in the city suggested the ordinance.

* * *

The twenty-fifth annual convention of the National Confectioners' Association will be held June 24th, 25th and 26th, at Shelbourne Hotel, Atlantic City, N. J.

* * *

Virginia health authorities are to investigate the healthfulness of Hokey Pokey.

* * *

Assistant Dairy and Food Commissioner Schuknecht of Illinois addressed the retail grocers of Cairo, May 6th.

SCIENTIFIC

ANALYSIS OF GASES CONTAINED IN SWOLLEN CANNED GOODS.

By F. O. Tonney, A. B., and J. B. Gooken, S. B., Chemists to the Department of Health, City of Chicago.

In connection with the condemnation of "swollen" or bulged canned goods, by health authorities in various parts of the country, the prevailing belief that such products are necessarily dangerous to the health of the consumer has frequently been called into question by the various commercial interests concerned. The statement is made that swollen or reprocessed goods have long been on the market and have frequently been eaten, perhaps oftener than we are aware, without a hint of the development of untoward symptoms. On the other hand medical records are full of cases of ptomaine poisoning, resulting in serious illness or death, following the indigestion of partly decomposed or slightly tainted nitrogenous foods. Among those cases in which the poisoning has been traced to its source, canned food products hold a well earned and deservedly prominent place.



F. O. TONNEY, A. B.

In this connection some of the problems which present themselves to food chemists for solution are:

1. Is the process going on in the swollen can a simple alcoholic fermentation, producing products no more harmful than ordinary alcoholic drinks, as has been claimed?

2. Does the gas arise from the breaking down of sugars and starches whose oxidation products are harmless, or from the proteid or nitrogenous elements whose decomposition may produce a long list of toxic compounds?

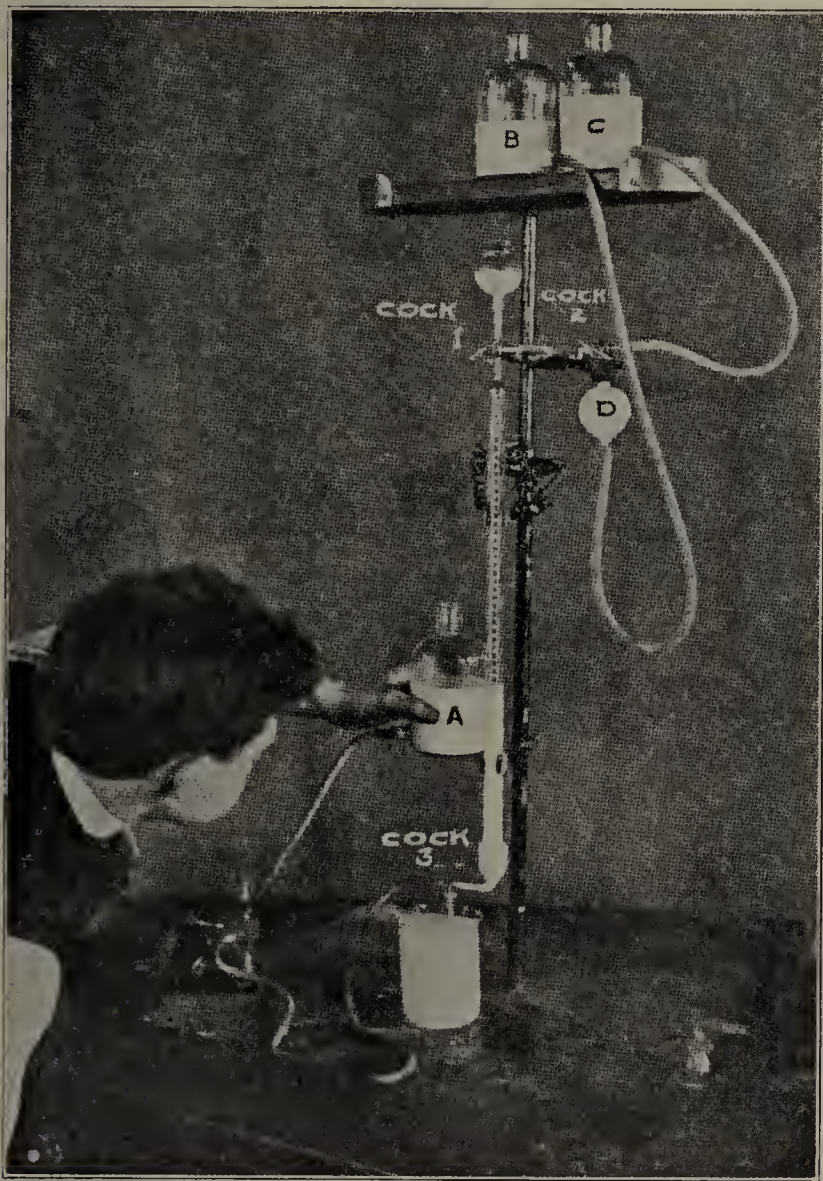
3. Do the bacteria concerned belong to the ptomaine producing groups or do they represent some of the common innocuous aerobic types?

4. Lastly, can the harmful products, once formed, be destroyed by heating or chemical treatment and thus rendered safe for human consumption?

With the object of throwing some light upon the subject, the investigation here reported was undertaken in the Chicago Department of Health laboratories. About one hundred analyses have been made of the gases contained in swollen canned products. The samples examined were taken from various lots of goods condemned by the department, and represent all or nearly all of the common varieties of canned food-stuffs now on the market. Some interesting results have been obtained and considerable information elicited as to the nature of the changes taking place within the can, as to the general classes of bacteria

producing them, and as to the probable presence or absence of products dangerous to human life and health.

From the nature of the canning process, which aims to expel all air from the can before sealing, it is evident that if properly done, only those organisms can develop which are able to abstract the oxygen necessary for their existence from the material within the can, i. e., only the anaerobes, either facultative or obligate, can grow to any great extent. Undoubtedly, however, air is frequently left in the cans or enters as a result of a cooling draught before sealing is completed, a fact which permits the growth of various fermentative and aerobic forms which would otherwise not find conditions favorable to their development.



THE MOREHEAD GAS BURETTE IN USE.

In making the analyses, the Morehead apparatus, shown in the accompanying cut, has been found especially satisfactory. The complete analysis is made without the necessity of transferring the gas to a separate container for each absorption. Calculations of temperature and pressure are unnecessary. Results are reported in per cent by volume.

The gases are introduced into the burette by means of the apparatus devised by Doremus*, consisting of an adjustable clamp having attached to its upper arm a beveled hollow steel needle. A perforated rubber stopper fits on the point of the needle and serves as an air tight cushion to prevent loss of gas at the time of perforation. A rubber tube connects the needle with

the gas burette. The can is adjusted between the arms of the clamp and by turning the screw the needle is brought into contact with the top of the can. With the increase of pressure from the screw the can is soon punctured and the gas flows out through the hollow needle and its connections into the Morehead apparatus.

The gases are determined by the ordinary methods. The carbon dioxide is absorbed by means of a solution of caustic potash; the oxygen is absorbed by an alkaline solution of pyrogalllic acid; the carbon monoxide is absorbed by a saturated solution of cuprous chloride. The hydrogen and methane are determined together by mixing the remaining gas with twice its volume of oxygen, igniting by means of an electric spark, and measuring the contraction. The methane is determined by absorbing the carbon dioxide in the residual gas by means of caustic potash and the hydrogen is taken by difference. The nitrogen is calculated by subtracting the total volume of gases determined from the original amount taken.

It is generally conceded that the bulging of cans is usually due primarily to imperfect sterilization of the product during the canning process; the more resistant spores are not killed and from these develop vegetative forms whose ferments disorganize the contents of the can, producing, among other products, considerable quantities of gas.

As to interpretation of results, the presence of CO_2 in a large number of samples, together with alcohol, would on first thought tend to support the view that swelling is due largely to alcoholic fermentation. Undoubtedly this is in many instances the case. As much as 95 per cent of the gas in a few of the samples was found to be CO_2 . This is particularly true of fruits, the amount of sugar which they contain rendering them particularly susceptible, to the action of schizomycetes. In such cases the contents of the can could probably be eaten without any serious consequences. It must be borne in mind, however, that the presence of pure CO_2 cannot be established except by chemical analysis, which is of course, impractical for the ordinary consumer, or dealer. Furthermore, it would be a serious error to suppose that, uncomplicated alcoholic fermentation is the rule. As a matter of fact, fermentation is usually accompanied by other destructive changes, as indicated by the fact that large percentages of nitrogen, and sometimes hydrogen, are associated. It is natural to slip into the error of regarding fruits as composed chiefly of sugars and fruity acids, with only a small amount of nitrogenous material. It is somewhat surprising, therefore, to find a nitrogen residuum of 30 to 50 per cent in gas collected from canned peaches. The lesson is evident that dangers from nitrogenous decomposed products cannot be overlooked even in fruits which are apparently only "fermented."

Nitrogen, it will be noticed, is a fairly constant finding in the whole series of analyses. Its significance, as intimated above, aside from small amounts due to entrance of air, lies in the fact that it may be considered a rough index of the amount of proteid decomposition which has taken place, and as such has important bearing on the likelihood of the presence of ptomaines. In general it may be said that nitrogen indicates putrefaction and carbon dioxide indicates fermentation. The two processes, however, were not often found to be distinct from each other.

The presence of hydrogen, which was found in

*The authors beg to acknowledge the assistance of Dr. J. F. Biehn, director of Chicago Dept. of Health Laboratory, under whose direction these experiments were conducted.

quantities varying from 0 to 58 per cent, is believed by the writers to be an especially valuable indication of ptomaine-producing processes. The ptomaine forming types of bacteria are known to be anaerobes, and prolific producers of hydrogen. Furthermore, a marked putrefactive odor was always noticed in samples containing hydrogen, and a qualitative test for hydrogen sulphide, a common splitting product from albumens, showed that this gas also is usually associated. The fishy odor of amido bodies which are closely allied to ptomaines was also frequently noticed.

Marsh gas was occasionally found in small amounts associated with hydrogen. Its significance is probably similar.



J. B. GOOKER S. B.

contents had been completely liquefied.

One of the most noticeable facts brought out in the course of the analyses was the extreme variation in the amount and kind of constituent gases in the same type of goods. Although time, temperature, etc., would be expected to have an influence on bacterial development in different samples, goods from the same lot, packed on the same date and kept presumably under the same conditions were found to give remarkably varied results, variations depending, of course, on the kind of organisms which had gained entrance to the can. One can out of a lot may show simple alcoholic fermentation, while its neighbor in the same box presents marked evidences of putrefaction. It is evident, therefore, that a favorable analysis of one or two cans cannot properly be taken as a criterion for the safety of the lot.

Regarding the treatment of swollen canned goods, all methods are open to serious objection. Perforation and thorough sterilization of the can by heat is probably the least objectionable. The process of decomposition can be arrested, and most of toxic nitrogenous bodies destroyed by the increase in temperature. It is a fact, however, that certain ptomaines are unaffected by the temperature of boiling water, and hence remain to add to the already lengthy list of persons poisoned by foodstuffs.

Emptying the cans into a vat for sterilization, deodorization, and chemical treatment has also been practiced. The method makes possible the contamination of the whole vat by a single can.

Treatment with chemical antiseptics may inhibit further growth of the organisms concerned, but does not remove the products already formed.

There is no doubt that swollen or reprocessed

canned goods are often consumed, and their consumption not attended by the development of untoward symptoms, for the reasons that toxic products are often not formed at all, and that even when found they are evanescent in character and tend to break down into simpler splitting products. Nevertheless as shown by the accompanying analyses the possibility of the presence of ptomaines must always be considered, simple fermentation unassociated with proteid decomposition being comparatively uncommon. The possibility, or rather the likelihood of danger to a large number of persons, should be sufficient to exclude such products from sale. And in the absence of any unfailing chemical tests for the toxic bodies themselves, the presence of conditions favorable to their formation and the presence of substances commonly associated with them must be considered adequate grounds for condemnation.

Some of the more interesting results have been selected, and follow.

	Per cent CO ₂	Per cent O ₂	Per cent H ₂	Per cent N.	Acidity as per ct. acetic acid.
Tomatoes	99.10	....	....	....	.51
Tomatoes	51.10	1.39	....	47.52	.39
Tomatoes	92.91	....	....	....	.66
Tomatoes	28.31	1.5	48.7	20.80	.30
Tomatoes	17.2	1.3	58.1	23.4	.35
Tomatoes	20.4	1.3	50.5	27.8	.31
Tomatoes	85.5	....	....	14.5	1.26
Tomatoes	78.3	....	....	21.7	.74
Tomatoes	68.0	3.4	....	28.33	.84
Tomatoes	99.0	....	....	....	.87
Tomatoes	45.3	.8	37.1	16.4	.37
Tomatoes	43.0	1.2	32.3	23.2	.36
Tomatoes	41.6	2.4	....	56.	.25
Tomatoes	56.2	2.2	....	41.6	.66
Tomatoes	76.6	....	....	23.4	.78
Tomatoes	80.0	....	....	20.0	.12
Tomatoes	46.0	....	....	51.4	.48
Tomatoes	18.5	....	....	81.5	.27
Tomatoes	73.0	....	....	27.0	.66
Tomatoes	70.0	....	....	30.0	.27
Tomatoes	53.0	....	....	47.0	.90
Tomatoes	97.0	....	....	3.0	1.02
Tomatoes	46.3	....	....	53.7	1.03
Corn	73.5	....	....	26.1	.43
Corn	78.9	....	....	21.1	..
Corn	63.9	....	23.9	11.9	..
Corn	92.1	....	....	7.9	..
Corn	7.14	....	....	92.86	.05
Corn	49.9	2.15	20.1	27.85	.79
Corn	26.58	1.3	47.05	25.07	1.12
Corn	73.4	....	17.2	9.4	.07
Corn	73.4	....	....	26.6	.57
Corn	63.6	3.4	....	33.0	.26
Corn	56.1	5.0	....	38.9	.76
Peas	66.3	....	....	33.7	.73
Peas	74.9	.5	....	24.6	.41
Peas	72.6	....	....	27.4	.4
Peas	78.15	.6	....	21.25	.66
Peas	98.2	....	....	....	.52
Peas	75.97	....	....	24.03	.44
Peas	73.3	.5	9.67	16.53	.26
Peas	43.2	4.5	7.85	48.47	.36
Peaches	3.85	4.1	44.4	47.63	.17

	Per cent CO ₂ .	Per cent O ₂ .	Per cent H ₂ .	Per ct. N.	Acidity as per ct. acetic acid.
Peaches	67.1	....	....	32.9	.45
Beans	96.59	....	....	....	..
Beans	61.72	.7	16.8	20.78	1.01
Beans	96.79	....	....	....	..
Beans	93.1	....	....	6.9	..
Beans	85.1	.7	....	14.2	..
Beans	65.7	....	....	34.3	..
Pears	65.0	....	....	35.0	.27
Pears	100.0	....	....	....	.30
Cherries	5.0	3.7	46.3	45.0	.49
Cherries	5.0	2.5	44.7	45.3	.51
Sour kraut...	8.0	2.0	....	90.0	.47
Sour kraut...	82.0	....	....	18.0	.654
Red rasp....	5.2	6.5	7.0	81.3	.90
Strawberries .	11.14	1.6	....	87.2	.80
Herring	30.6	....	....	69.4	..
Herring	33.4	2.33	....	64.27	..
Mushrooms ..	24.5	....	61.7	12.1	.015
Blueberries ..	...	3.5	57.9	38.6	.36
Sardines	31.39	3.99	....	64.62	..

Household Science

CARBOHYDRATE-FREE FOODS.

Following is Von Noorden's list of carbohydrate-free articles of food as given in an interesting article by Dr. Tyndale in "Utah Medical Journal."

Fresh Meats.—All the muscular tissues of mammals and birds, braised, boiled or roasted, with their own gravy, with butter, free mayonaise or other sauces made without flour, warm or cold.

Inner Parts of Animals.—Tongue, heart, lungs, brain, calf's spleen, kidney, marrow, liver of calf, game and poultry up to 100 gms. (weighed after cooking).

External Parts of Animals.—Feet, ears, snout and tail of all edible animals.

Conserved Meats.—Dried and smoked meats, smoked and salted tongue, pickled meats, ham, bacon, smoked goose breast, American and Australian tinned meats, brawn, oxtops.

Sausage.—All various kinds, if free from bread or flour.

Potted Meats or Meat Pastes.—Strasburg goose-liver, etc., provided they do not contain bread or flour; with home-made articles the absence of flour may be assured.

Albumin, Preparation of.—Somatose sanatogen, caesin, eucasein, nutrose, tropon, roborat, etc.

Meat Extracts.

Fresh Fish.—All fresh and salt water fish, boiled or grilled, or served with flour-free sauce. Fresh melted or browned butter may be taken at the same time. If the fish is cooked in bread crumbs, the latter should be removed before eating.

Conserved Fish.—Dried, salted, or smoked fish, such as cod, shell fish, herring, mackerel, sole, plaice, salmon, sprats, eels, etc.; also pickled herrings, sardines in oil, mackerel in oil, anchovies, sardellen, tunny, caviar.

Mussels and Crustacea.—Oysters, mussels, lobster, crab, turtle, crayfish, etc.

Meat and Fish Sauce.—The well-known English piquant or similar sauces; beefsteak, anchovy, lobster, shrimp, Indian soy, China soy, etc., may be taken in small quantities, if not contra-indicated for special reasons.

Eggs.—From all birds, raw or cooked in various ways, but without added flour or meal.

Fat.—Of animal or vegetable origin, e. g., butter, lard, fat of roast meats, margarine, olive oil, usual salad oil, cocoa butter, goose fat, cod liver oil.

Cream.—Good fat-rich cream, sweet or sour, as drink or added to solid foods or to drinks (if not necessarily restricted) up to about 200 cc. a day. For cooking purposes, cream may be substituted for flour when making special dishes of meat, fish, vegetables and eggs.

Baked Foods.—Very few baked foods are absolutely carbohydrate-free. Those nearly so are prepared partly from ground almonds, partly from gluten.

Fresh Vegetables.—Salads, lettuce, crisp and smooth endives, cress, dandelion, purslane.

Aromatic Herbs.—Parsley, dill, thyme, pimpermell, mint, leek, garlic, celery.

Fruits and Roots and Stalks.—Gherkin, tomato, young green beans, vegetable marrow, onions, rape-cole (so long as they are still green), radishes, sea-kale (in slight cases also root artichoke and stachys), white and green asparagus, hops, Brussels sprouts, zichorie, English celery (except the root), young rhubarb sprouts.

Blossoms and Flowers.—Cauliflower, broccoli, Brussels sprouts, artichoke.

Leaves.—Spinach, sorrel, curly cabbage, white cabbage, red cabbage, butter-cabbage, savoy cabbage, red beet.

Fungi.—Fresh mushrooms, stone or egg fungi, morel truffles in usual quantities.

Fruits.—Bilberries, unripe gooseberries, when prepared with saccharin instead of sugar.

Conserved Vegetables.—Asparagus, haricot, beans, cut beans, salted gherkins, pickled gherkins, peppered gherkins, mixed pickles, sauerkraut, olives, champignons and any prepared vegetables of those groups already mentioned.

Condiments.—Salt, white and black pepper, cayenne, paprika, curry, cinnamon, clove, nutmeg, English mustard, saffron, aniseed, caraway, bay, caper, vinegar, citron—if not otherwise contra-indicated.

Soups.—Meat soups prepared from fresh meats or meat extracts, with the addition of green vegetables, asparagus, eggs, fragments of meat, marrow, liver, Permesan cheese or other foods contained in this table.

Sweets.—Prepared from eggs, cream, almonds, citron, gelatine, saccharin being substituted for sugar.

Drinks.—All varieties of spring and seltzer water; good brands of brandy, rum, arack, whisky, corn brandy, Kirschwasser and other fruit spirits.

Wine.—All the well-known table wines (white or red) are almost sugar-free; at all events those that have been kept for three or more years in casks; Bordeaux, Burgundy and Ahz wines come under this category. White Rhine, Moselle, Saar wines are also almost free from carbohydrates.

Cocoa.—Cocoa may be taken, if not specially contra-indicated. The quantity, however, should be restricted. Ten gms. of the pure cocoa for diabetics (sweetened with saccharin).

Important United States Circuit Court of Appeals Decision

UNITED STATES TREASURY DECISION INTERNAL REVENUE

(T. D. 1371.)
Adulterated Butter.

Under the regulations made by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, butter having 16 per cent or more of moisture contains an abnormal quantity and is adulterated butter. These regulations were authorized.—The subject of the authority of Congress to authorize administrative officials to make rules and regulations for the enforcement of a law considered.—The authority to make all needful regulations, not inconsistent with law, is not a delegation of power to add something to an incomplete law nor a grant of judicial power.—The question as to what is an abnormal moisture content in dairy butter is nothing more or less than a question of fact.—The question whether the manufacturers intended to make adulterated butter is not material if the process employed had that effect.

Treasury Department,
Office of Commissioner of Internal Revenue,
Washington, D. C., June 1, 1908.

The appended decision of the United States circuit court of appeals for the sixth circuit, relative to adulterated butter, is published for the information of all concerned.

JOHN G. CAPERS,
Commissioner.

United States Circuit Court of Appeals, Sixth Circuit.—No. 1762.

Coopersville Co-operative Creamery Company v. Samuel M. Lemon.

Error to the Circuit Court of the United States for the western district of Michigan.

[Decided May 5, 1908.]

Before Lurton, Severens, and Richards, Circuit Judges.

Lurton, Circuit Judge, delivered the opinion of the court:

The plaintiff in error, as its corporate name implies, was engaged at Coopersville, Mich., in the manufacture of creamery butter. It did not profess to be engaged in making or selling adulterated butter and so took out no license and paid no tax as a maker of such butter. Upon the contrary it claimed to be making the ordinary creamery butter of commerce and not subject to the regulations or tax imposed upon makers of adulterated butter. Two carloads of butter made by it were examined by an agent of the Commissioner of Internal Revenue and a very large proportion found to contain an abnormal percentage of water, which was therefore classified as "adulterated butter" as defined by the act of 1902. The Commissioner thereupon assessed taxes and penalties aggregating \$1,620. This was paid under protest and this action brought against the defendant in error as collector to recover the same. There was a jury and a verdict for the defendant.

The act of May 9, 1904 (32 Stat at L., 194), is an act which amends the act of August 2, 1886, known as the oleomargarine act, and also imposes a tax and provides for the inspection and regulation of the manufacture and sale of certain dairy products. Section 4 adopts the definition of butter contained in the oleomargarine act, wherein butter is defined as the "food product usually known as butter and which is made exclusively from milk or cream, or both, with or without common salt, and with or without additional coloring matter." The same section then proceeds to define what shall be deemed "adulterated butter." One class of such butter is thus defined, "or any butter in the manufacture or manipulation of which any process or material is used with intent or effect of causing the absorption of abnormal quantities of water, milk or cream." Every person who engages in the production of "adulterated butter as a business" is declared to be a manufacturer and required to pay a tax of \$600 per year, and to pay a tax of 10 cents a pound when sold or removed for sale or consumption. Every manufacturer is required to give bond, put up signs, and keep such books and render such returns of material and product, "and to conduct his business under such surveillance of officers and agents as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may by regulation require." The mode of packing and marking such butter is also defined and the packages required "to be stamped and branded as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall prescribe." By one paragraph of the same section it is provided that the provisions of Sections 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 and 21 of the oleomargarine act "shall apply to the manufacturers of adulterated butter to an extent necessary to enforce the marking, branding, identification and regulation of the exportation and importation of adulterated butter." Most of the sections referred to from the oleomargarine act deal with penalties for selling or receiving or removing the product without compliance with law as to stamping, branding, marking, etc. Section 14 provides for the employment of chemists and microscopists by the Commissioner to aid him in his duties and that he shall be authorized to decide what substances, extracts, mixtures, or compounds which may be submitted for his inspection in contested cases are to be taxed under this act; and provides that his determination in matters of taxation "under this act shall be final." Section 20 provides, "that the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may make all needful regulations for carrying into effect this act."

In addition to these provisions found in the act itself there are certain other provisions in the general law which bear upon the subject. They are found in Sections 161, 251 and 3447, Revised Statutes. Section 251 is peculiarly in point inasmuch as that authorizes the Secretary of the Interior "to make rules and regulations, not inconsistent with law, to be used under and in the enforcement of the various provisions of the internal revenue laws." In view of these provisions of law the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, promulgated a regulation that butter containing 16

per cent or more of water, milk or cream should be classified as adulterated butter under the act. Looking to the character of duties imposed upon the Commissioner of Internal Revenue, and the various provisions of law authorizing the promulgation of regulations for carrying out the plain purpose of the law, we entertain no serious doubt that this regulation was authorized. The contention that the delegation of authority to promulgate such a regulation is to delegate either legislative or judicial power to an executive officer, is founded upon a misapprehension of the character of the authority delegated. That Congress cannot delegate legislative authority or power to any executive official or board of officials is elementary. To do so would be destructive of our whole system and scheme of government. *Field v. Clark* (143 U. S., 649, 691.) That the delegation of authority to add to or take from a law would be to delegate legislative power must also be conceded. But that Congress may enact a law and delegate the power of finding some fact or state of things upon which the operation of the law is made to depend is equally clear. *Field v. Clark* (143 U. S., 649); *In re Kollock* (165 U. S., 526); *Buttfield v. Stranahan* (192 U. S., 470); *Union Bridge Company v. United States* (204 U. S., 364, 386). The authority to make all needful regulations, not inconsistent with law, is not a delegation of power to add something to an incomplete law nor a grant of judicial power. It is only an authority to determine the fact upon which the operation of the law is made to depend. Congress might have made the necessary tests and might have acquired the knowledge of the butter-making art to enable it to have enacted that adulterated butter should consist of butter having a moisture content of 16 per cent or more. But that would have been an unnecessary detail, for it was altogether competent to declare that butter which contained an abnormal quantity of water, milk or cream should be classified as adulterated butter and that the fact as to what was, in dairy butter, an abnormal proportion of water, milk or cream should be determined by a regulation of the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury. The cases cited above of *Field v. Clark* (143 U. S., 649), *In re Kollock* (165 U. S., 526) *Buttfield v. Stranahan* (192 U. S., 470), and *Union Bridge Company v. United States* (204 U. S., 364), are all cases in which authority to determine a fact or the happening of a contingency upon which the operation of a law was made to depend was delegated by Congress to executive officials and the validity of the legislation supported. The case of *Field v. Clark* involved the constitutionality of an act of Congress which provided for the admission of certain articles free of duty and the imposition of a duty upon the specified articles upon the happening of a contingency to be determined by the President and announced by his proclamation. The act was sustained as one not delegating legislative power. Upon this aspect of the case the court said:

"Legislative power was exercised when Congress declared that the suspension should take effect upon a named contingency. What the President was required to do was simply in the execution of the act of Congress. It was not the making of the law. He was the mere agent of the law-making department to ascertain and declare the event upon which its expressed will was to take effect."

Another instructive case is that of *Buttfield v. Stranahan* (192 U. S., 470), where was involved the valid-

ity of an act which made it unlawful for any person to bring into the United States any tea inferior in purity, quality, or fitness for consumption *below the standards to be fixed and determined by a board of experts provided for by the act*. The act was held valid as not vesting in the Secretary of the Treasury or the board of experts any real power of legislation. "Congress," said Justice White, speaking for the court, "legislated upon the subject as far as was reasonably practicable and from the necessities of the case was compelled to leave to the executive officials the duty of bringing about the result pointed out by the statute. To deny the power to Congress to delegate such a duty would, in effect, amount to declaring that the plenary power vested in Congress to regulate foreign commerce could not be efficiently executed."

The whole subject of the authority of Congress to authorize administrative officials to make rules and regulations for the enforcement of a law was again most fully and ably considered in the case of the *Union Bridge Company v. United States* (204 U. S., 364, 386). That case involved Section 18 of the rivers and harbors act of 1899 (30 Stat. at L., 1121), providing for the removal or alteration of bridges which are unreasonable obstructions to navigation, after the Secretary of War shall have ascertained, after following the procedure laid down in the act, that they are such obstructions. The contention was that Congress could not delegate the power of deciding the fact as to whether a particular bridge was an obstruction to navigation. It was held that the act did not delegate either judicial or legislative power to the Secretary of War. Mr. Justice Harlan for the court, among other things, said:

"Beyond question, if it had so elected, Congress, in some effective mode and without previous investigation through executive officers, could have determined for itself, primarily, the fact whether the bridge here in question was an unreasonable obstruction to navigation, and, if it was found to be of that character, could by direct legislation have required the defendant to make such alterations of its bridge as were requisite for the protection of navigation and commerce over the waterway in question. But investigations by Congress as to each particular bridge alleged to constitute an unreasonable obstruction to free navigation and direct legislation covering each case separately would be impracticable in view of the vast and varied interests which require national legislation from time to time. By the statute in question Congress declared in effect that navigation should be freed from unreasonable obstructions arising from bridges of insufficient height, width of span, or other defects. It stopped, however, with this declaration of a general rule and imposed upon the Secretary of War the duty of ascertaining what particular cases come within the rule prescribed by Congress, as well as the duty of enforcing the rule in such cases."

The case of *United States v. Eaton* (144 U. S., 677) is not in point. Eaton was indicted for violating a regulation made by the Commissioner of Internal Revenue requiring certain books to be kept by wholesale dealers in oleomargarine. The case arose under the eighteenth section of the oleomargarine act of 1886 prior to its amendment by the act of October 1, 1890. That section imposed certain penalties upon manufacturers and dealers who should knowingly and willfully "neglect or refuse to do, or cause to be done, anything required by law in the carrying on or con-

ducting of his business, or shall do anything by this act prohibited." . . . The court held that while the regulation might be an entirely proper one under Section 20 of the oleomargarine act of August, 1886, yet the question to be determined was whether a wholesale dealer in oleomargarine, who knowingly and willfully fails and omits to keep the book and make the monthly return prescribed in the regulation of the Commissioner of Internal Revenue, thereby fails and omits, within the meaning of Section 18 of the act, to do a thing "required by law in the carrying on or conducting of his business" so as to be liable to the penalty prescribed by that section. After considering the sections of the act which deal with the things required from a manufacturer, but which impose no penalty for neglect to keep books and make returns, the court said:

"It would be a very dangerous principle to hold that a thing prescribed by the Commissioner of Internal Revenue, as a needful regulation under the oleomargarine act, for carrying it into effect, could be considered a thing 'required by law' in the carrying on or conducting of the business of a wholesale dealer in oleomargarine, in such manner as to become a criminal offense punishable under Section 18 of the act; particularly when the same act, in Section 5, requires the manufacturer of the article to keep such books and render such returns as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may, by regulation, require, and does not impose, in that section or elsewhere in the act, the duty of keeping such books and rendering such returns upon a wholesale dealer in the article.

"It is necessary that a sufficient statutory authority should exist for declaring any act or omission a criminal offense; and we do not think the statutory authority in the present case is sufficient. If Congress intended to make it an offense for wholesale dealers in oleomargarine to omit to keep books and render returns as required by regulations to be made by the Commissioner of Internal Revenue, it would have done so distinctly, in connection with an enactment such as that above recited, made in Section 41 of the act of October 1, 1890.

"Regulations prescribed by the President and by the heads of departments, under authority granted by Congress, may be regulations prescribed by law, so as to lawfully support acts done under them and in accordance with them, and may thus have, in a proper sense, the force of law; but it does not follow that a thing required by them is a thing so required by law as to make the neglect to do the thing a criminal offense in a citizen, where a statute does not distinctly make the neglect in question a criminal offense."

This Eaton case was explained and distinguished in both *Caha v. United States* (152 U. S., 211), and *In re Kollock*, cited above, as a case in which the wrong was simply "in violation of the duty imposed only by regulation of the Treasury Department." While it must be conceded that none of the provisions of the butter act, nor of the general law, in express terms confers authority to determine the per cent of moisture in dairy butter which shall constitute adulterated or taxable butter, yet it is not easy to escape the conclusion, in view of the general character of the law, and of the broad language in which the power to make needful rules to carry the law into execution is conferred, that there is an implied power to determine the fact as to what is an undue, unusual, or, in

the words of the act, an "abnormal" incorporation of moisture. An express power to make departmental regulations involving the determination of facts upon which the operation of a law is made to depend is not essential. That which is plainly implied is as much the law as that which is expressed in plain terms. For the practical operation of the law it was deemed necessary that the department charged with its execution should have authority to make regulations not inconsistent with law, and this power was accordingly conferred in general terms. The regulation in question is reasonable; is not inconsistent with law, and we see no sufficient ground for saying that it is not within the fair scope and purview of the authority conferred. The cases of *United States v. Bailey* (9 Pet., 238) and *Caha v. United States* (152 U. S., 211) afford illustrations or regulations made under implied authority arising out of the nature of the duties imposed upon those charged with the execution of the law.

The conclusiveness of the determination of the fact upon which this law is made to depend would seem to follow from the authority under which it was made. The fact is one which Congress might have determined for itself. Obviously, if it did, that would be an end of the matter and all butter which contained the moisture content so fixed, or more, would have been subject to the tax. In referring the determination of the fact to the administrative officials it has equally manifested its intent that the standard of excessive water content should be, when so determined, as conclusive as if named in the law itself. If in fixing the standard the Commissioner does not legislate by amending the law or altering it, or act judicially by deciding a fact which was one which in its intrinsic nature required judicial determination, it is difficult to see, in the absence of fraud or bad faith, neither of which is here alleged, upon what theory a fact which Congress has submitted to his determination can be subject to review. The power of Congress to tax all butter or only certain qualities of butter is not disputable and is only qualified by the requirement of geographical uniformity. Wishing to tax certain grades of butter only, it delegated to an administrative board the determination of the question of fact as to what was an abnormal moisture content and made that fact so settled the line between taxable and non-taxable butter. It is true that in *McCray v. United States* (195 U. S., 27, 46), the court declined to determine the conclusiveness of the determination of the Commissioner as to what compounds or mixtures were subject to tax imposed upon oleomargarine, because not raised by any assignment of error. But the question has been more than once substantially decided in other cases. In *Miller v. The Mayor of New York* (109 U. S., 385), it was held that the determination by the Secretary of War that a bridge authorized by Congress, provided it should be constructed in such a way as not to be an obstruction to navigation, the fact to be determined by the Secretary of War upon plans submitted to him, was a conclusive determination of the fact so decided. It was urged that Congress could not give the determination of such a fact by an executive official any conclusive character as that involved the delegation of judicial power. To this the court replied:

"There is in this position a misapprehension of the purport of the act. By submitting the matter to the Secretary, Congress did not abdicate any of its authority to determine what should or should not be deemed an obstruction to the navigation of the river. It simply

declared that, upon a certain fact being established, the bridge should be deemed a lawful structure, and employed the Secretary of War as an agent to ascertain that fact. Having power to regulate commerce with foreign nations and among the several states, and navigation being a branch of that commerce, it has control of all navigable waters between the states, or connecting with the ocean, so as to protect and preserve their free navigation. Its power, therefore, to determine what shall not be deemed, so far as that commerce is concerned, an obstruction, is necessarily paramount and conclusive. It may in direct terms declare absolutely, or on conditions, that a bridge of a particular height shall not be deemed such an obstruction; and, in the latter case make its declaration take effect when those conditions are complied with. The act in question, in requiring the approval of the Secretary before the construction of the bridge was permitted, was not essentially different from a great mass of legislation directing certain measures to be taken upon the happening of particular contingencies or the ascertainment of particular information. The execution of a vast number of measures authorized by Congress, and carried out under the direction of heads of departments would be defeated if such were not the case. The efficiency of an act as a declaration of legislative will must, of course, come from Congress, but the ascertainment of the contingency upon which the act shall take effect may be left to such agencies as it may designate. *South Carolina v. Georgia* (93 U. S., 13)."

Congress forbid the importation of teas which should not conform in quality and purity to standards of admissible teas to be determined by the Secretary of the Treasury upon the advice of a board of experts. The act was upheld as not involving anything more than the delegation of authority to the Secretary of the Treasury to determine the fact upon which the operation of the law was made to depend. *Buttfield v. Stranahan* (192 U. S., 470, 497).

The effect of fraud, bad faith, or malice in the adoption of the standard of admissible tea the court said they were not called upon to consider as no allegation of bad faith in fixing the standards had been made. In *Union Bridge Company v. United States* (204 U. S., 364), the Secretary of War had determined upon evidence submitted to him that a particular bridge was an obstruction to navigation and required its destruction in accordance with an act of Congress which forbid the maintenance of any bridge which was an obstruction. The court held that his action did not involve either the exercise of legislative or judicial power. The court in that case said:

"In performing that duty the Secretary of War will only execute the clearly expressed will of Congress, and will not, in any true sense, exert legislative or judicial power. He could not be said to exercise strictly legislative or judicial power any more, for instance, than it could be said that executive officers exercise such power when, upon investigation, they ascertain whether a particular applicant for a pension belongs to a class of persons who, under the general rules prescribed by Congress, are entitled to pensions. If the principle for which the defendant contends received our approval the conclusion could not be avoided that executive officers, in all the departments, in carrying out the will of Congress, as expressed in statutes enacted by it, have, from the foundation of the national government, exercised and are now exer-

cising powers, as to mere details, that are strictly legislative or judicial in their nature. This will be apparent upon an examination of the various statutes that confer authority upon executive departments in respect of the enforcement of the laws of the United States. Indeed, it is not too much to say that a denial to Congress of the right, under the Constitution, to delegate the power to determine some fact or the state of things upon which the enforcement of its enactment depends would be 'to stop the wheels of government' and bring about confusion, if not paralysis, in the conduct of the public business."

But if not conclusive in a contested case, the regulation and guide, enabling the officials charged with the enforcement of the law to act with impartiality and uniformity in exacting the tax imposed. Its promulgation was at least an assurance to people engaged in butter making that the administrative officials charged with the collection of this tax would not subject them to the tax or a departmental regulation of their business if their butter did not contain as much as 16 per cent of moisture, and a warning against any greater percentage. This much must be conceded. Assuming then that it may not have the force of law as a conclusive determination of the question, does it follow, if the tentative or *prima facie* determination of the Commissioner by such a regulation is challenged by a manufacturer from whom the tax is exacted, that the act is to fail because in such circumstances there can be no final determination of the fact of what is abnormal moisture in butter? It may be that such a question, involving as it does more or less of scientific knowledge and a wide acquaintance with the moisture content of standard butter, could be more satisfactorily determined by a commission of experts or by the action of Congress itself. But does it follow that such a question could not be submitted to a jury when the enforcement of the tax is involved and the maker of the butter contests the fact of an abnormal moisture content? That juries might disagree with one another as to a normal water content and so some would be compelled to pay and others escape may be conceded. But is not this so with respect to many questions which for centuries have gone to the jury? By what standard is a question of fraud to be tried? What is the definite fixed standard of care by which juries are to determine negligence? We tell them the care of the average prudent man is the standard. But can that be said to afford an identical idea to the mind of every juror? Questions of motive and intent are questions for the jury. Questions involving scientific knowledge far beyond that of the best class of jurymen are submitted, although the verdict may afford no standard for another case and that questions depending on science are peculiarly capable of an exact and uniform answer. Manifestly this objection is not maintainable, unless it be that as an excise tax it will lack that uniformity of operation required by the Constitution because the verdict of one jury will afford no standard for another. But it is the peculiar province of a jury to determine disputed questions of fact. The question as to what is an abnormal moisture content in dairy butter is nothing more or less than a question of fact. If the fact exist by confession or by the determination of a jury the butter is subject to the tax. If the fact is not in some way established the butter is not taxable. To reply, that, because all juries may not agree that a particular moisture content is essential to constitute abnormal moisture, therefore, the law will lack

in that uniformity essential to an excise law, is to say that constitutional uniformity in a tax is dependent upon its intrinsic uniformity, upon its genuine equality of burden. But the provision requiring uniformity in respect to duties, imports, and excises does not mean that the burden of the duty or tax shall rest with uniformity upon all individuals or states. A tax is uniform which falls upon the same article in all parts of the country. In *Knowlton v. Moore* (178 U. S., 42, 106), Justice White, after an interesting historical consideration of the meaning of the clause requiring uniformity, speaking for the court, said:

"By the result of an analysis of the history of the adoption of the Constitution it becomes plain that the words 'uniform throughout the United States' do not signify an intrinsic but simply a geographical uniformity."

The objection arising out of the possibility of contradictory judgments upon like evidence as to what water content is normal, and the fact that one might be taxed and another escape, does not affect this matter of geographical uniformity. As observed by Mr. Justice Miller in the *Head Money Cases* (112 U. S., 581, 594), "perfect uniformity and perfect equality of taxation, in all the aspects in which the human mind can view it, is a baseless dream, as this court has said more than once." If, therefore, we err in holding the determination of the fact upon which the operation of the law was made by Congress to depend as conclusive when determined by the Commissioner of Internal Revenue, we think there was no error in submitting the matter to the jury. That the court instructed the jury that the regulation of the department was not conclusive cannot be complained of by the plaintiff in error. That he told the jury that the regulation was evidence of a "high character," which might be looked to along with all the other evidence, is not excepted to or assigned as error. The error relied upon as raising the questions we have discussed is for the refusal of the court to charge the second request by the plaintiff in error, being the seventh assignment of error. That request required the court to instruct the jury not only that the Commissioner had not the authority to fix the per cent of moisture which would subject butter to taxation, but that they must find for the plaintiff because the act did not itself fix such abnormal moisture content. By direction of the court, the jury specially found upon all of the evidence that butter having 16 per cent or more of moisture was butter with an abnormal water content, and that the butter of the plaintiff in error, here involved, had 16 per cent or more of water and was adulterated butter under the act and liable to the tax and penalties imposed. This state of the record relieves the case of some of its difficulties, for if the regulation of the department be conclusive, as a matter of law, the submission of the question to the jury as one of fact was without harm. If, upon the other hand, the question of fact as to what is an abnormal quantity of water, milk or cream in butter, is one of fact for the jury the plaintiff in error cannot complain unless there was some error in the submission or rejection of evidence or in charge of the court duly excepted to and duly assigned as error.

Counsel have assigned as error that the court declined to instruct as requested by their fourth request, the subject of the ninth assignment of error, which request was as follows:

"I also charge you, gentlemen of the jury, that the word absorption, used in the definition of adulterated

butter, I have given you, does not mean incorporation, and if you find from the evidence in this case, that butter fat will not absorb 15.99 per cent of water, and does not absorb to exceed 1 per cent of moisture, and that all the other water content is held by incorporation, then I charge you that your verdict will be for the plaintiff."

The charge upon this subject meets with our approval. It is as follows:

"Now, you will notice that there has been a great deal of discussion throughout the case as to the meaning of certain terms. Among the terms in question is the word 'absorption,' and it has been contended that that word must apply only to the water taken into the butter by the chemical process of absorption as distinguished from incorporation. It has appeared by the testimony of one of the witnesses that less than one-half of 1 per cent of water can be taken by what is chemically called absorption. That is not the only definition of the word absorb. A very proper definition as given by the dictionaries, the standard dictionaries, is to 'draw in as a constituent part.' It is inconceivable that the government would have passed a statute against adulteration where less than one-half of 1 per cent of water could have been absorbed and treated as absorption in a chemical sense, and you are instructed as the law of this case that it is the intent of this statute to make adulterated butter, which by any process is made to contain an abnormal amount of water, whether that is obtained by what is called chemical absorption or by incorporation or any other method of that kind; if, by the process of making that butter, there is left in it more than a normal amount of water, it is adulterated within the meaning of the statute."

Upon the subject of the intent of the plaintiff, the court charged the jury as follows:

"Then, the expression 'any process' used. Now, that does not mean necessarily that there has to be some special fraudulent process of making the butter, but if the process of making, whether by too little washing or too much washing, or too little churning or too much churning or whatever it is that has the effect of leaving an abnormal quantity of water in the butter, it is within the statute and within the prohibition of the statute."

"And again as to the intent. In this case, it is not material what the intent of the Coopersville Co-operative Creamery Company was, whether the Coopersville Co-operative Creamery Company intended to have an undue amount of water left in its butter; if the process as employed did have that effect, the company was just as much liable for that tax as if it did it intentionally, because it is the object of the law to prevent that thing being done."

The plaintiff's request made the subject of its eighth assignment of error was in conflict with this and was rightly denied. The other assignments have been considered. None of these are well taken.

Judgment affirmed.

COMMISSIONER WASHBURN RESIGNS.

Commissioner R. M. Washburn of Missouri has been appointed Professor of Dairy Husbandry in the Vermont Agricultural College, in which work he will engage September first. Many state officials apparently prefer the less profitable and conspicuous position to the uncertainties of political office.

INTERNAL REVENUE.

(T. D. 1352.)

Marking packages of distilled spirits.

(Circular No. 33—Int. Rev. No. 723.)

TREASURY DEPARTMENT,

OFFICE OF COMMISSIONER OF INTERNAL REVENUE,

Washington, D. C., May 5, 1908.

To Collectors of Internal Revenue and Others:

In accordance with opinions rendered by the Attorney-General in reference to the provision of section 3287 of the Revised Statutes of the United States, requiring distilled spirits, when drawn from the receiving cisterns in the distillery, to be marked or branded with the names "high wines, alcohol, or spirits, as the case may be," the regulations relating to the marking or branding of such casks or packages of distilled spirits are modified as follows:

All such distilled spirits, when drawn from the receiving cisterns, will be classified in three classes—namely, "high wines," "alcohol," or "spirits, as the case may be"—and will be marked or branded on the stamp head accordingly.

1. *High wines.*—That which is practically the first product of distillation in which the substances, congeneric with ethyl alcohol, have not been transformed or their properties otherwise partially eliminated, so as to convert them into any form of potable spirits, will be marked "high wines."

2. *Alcohol.*—(a) All forms of distilled spirits from which the substances congeneric with ethyl alcohol have been removed for practical purposes altogether, and which have been heretofore marked as "pure, neutral, or cologne spirits," will be marked "alcohol." (b) That product which has been commercially known as "alcohol" from which these congeneric substances have not been removed will be marked "commercial alcohol."

3. *Spirits, as the case may be.*—Those products of distillation in which, by reason of the original material used and the methods of distillation employed, the characteristic substances congeneric with alcohol have been retained, which differentiate them into various forms of potable spirits—such as whisky, brandy, rum, and gin—will be marked with the particular name of such potable spirit, as the case may be, without other description and without the addition of any adjective or descriptive word whatsoever; and the name of such particular spirit will be used, even although when any of such spirits may be drawn from the receiving cisterns into casks certain congeneric products of distillation have not been changed by aging or otherwise, so as to bring them to the potable form in which they are ultimately to be placed upon the market, provided such spirits have, before being drawn into the casks, been diluted to potable proof, so as to then constitute a crude form of potable spirits.

MARKING OF RECTIFIERS' PACKAGES.

Packages of distilled spirits stamped by gauger after rectification at a rectifying house shall be marked as indicated in one of the five following paragraphs, as the case may require, namely:

1. Those products of distillation which, without being blended or compounded with other spirits, have been so treated as to partially transform or otherwise partially eliminate the original congeneric substances

and bring them to a condition of a particular form of potable spirits, will be marked with the name of such form of potable spirits, as the case may be, as determined under the paragraph above numbered 3, relating to marking at distilleries.

2. A mixture of such potable spirits of the same kind will be marked "blended," followed by the particular name of such spirits, as, for example, "blended whisky."

3. A mixture of a particular kind of such potable spirits with alcohol, provided there is enough of such potable spirits to make it a real compound and not the mere semblance of one, will be marked as a "compound of" such spirit with the distillate with which it is mixed—as, for example, "a compound of whisky and grain distillate"; or, if preferred, with the particular name of such spirit "compound with" such other distillate—as, for example, "whisky, compounded with grain distillate."

4. Alcohol, commercial alcohol, or high wines, which have been manipulated by the aid of artificial flavors, colors, or extracts, or otherwise, so as to resemble some particular kind of potable spirits, will be marked with the name of such spirits, preceded by the word "imitation"—as, for example, "imitation whisky."

5. Packages containing cordials, liqueurs, and other like artificial compounds, will be marked with such appropriate name as shall indicate the kind of the contents.

WHOLESALE LIQUOR DEALERS' PACKAGES.

Packages filled on the premises of a wholesale liquor dealer, as provided by section 3323, United States Revised Statutes, must be marked by the dealer on the stamp end, in conformity with these regulations.

All words in the marks or brands on the heads of packages of distilled spirits must be legibly marked or branded in letters not less than 1 inch in length.

The provisions of this circular shall take effect on the 1st day of July, 1908, and all regulations inconsistent with the foregoing are hereby rescinded.

Collectors will place a copy of this circular in the hands of all gauging officers, and also supply a copy to each distiller, rectifier, and wholesale liquor dealer in their respective districts, and see that its provisions are fully and carefully observed.

JOHN G. CAPERS, *Commissioner.*

Approved:

GEORGE B. CORTELYOU, *Secretary of the Treasury.***The American Food Laboratory**

1235-1240 Caxton Bldg., 334 Dearborn St., Chicago

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THE AMERICAN FOOD JOURNAL



Vol. III No. 7

CHICAGO, JULY 15, 1908

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Vol. 3. No. 7.

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Armour & Company's Plant Highly Satisfactory.

Official Report of the Illinois Food Commission of the Packing House of Armour and Company at the Union Stock Yards, Chicago. Find Everything in the Most Sanitary Condition.

Chicago, Ill., July 14, 1908.

Hon. A. H. Jones,
State Food Commissioner,
Robinson, Illinois.

Dear Sir—On continuing our tour of inspection of the Stock Yards, we visited the plant of Armour & Co. We visited first the office building of this company and found employed about 1,200 clerks, stenographers, etc., located in a very fine new building, in which everything seemed to be arranged for the comfort and convenience of the employees. Mr. W. Laughlin, who accompanied us in part of our inspection, informed us that when this company first established its plant, it had only about forty persons employed in this department.

The building in which these employees work is a magnificent new fireproof structure arranged with ample light in every room and with a thorough system of ventilation. The air used in the building is thoroughly filtered through water and cooled before com-



NEW ARMOUR AND COMPANY OFFICE BUILDING FROM ELEVATED STATION PLATFORM, SHOWING ENTRANCE AND EAST END OF BUILDING.

ing into the rooms. The incoming air being evidenced by ribbons or flags placed at the place of ingress in each place in each room. This commodious building also contains a dining room for the office forces and foremen, overseers, etc., where an abundance of the best that is to be had on the market is furnished them at very nominal prices. This food is prepared in a kitchen that is furnished with every convenience for cleanliness and for the good wholesome preparation of food. The kitchen would arouse the envy of any housewife.

A new elevated railroad has within the past few weeks been in operation, by means of which direct transit from the loop district of the city may be made to the office door of this building, where a new elevated station has been built so the location is practically ideal both from a standpoint of convenience and business.

We inspected first the "Oleomargarine Department,"

where we witnessed the manufacture of "Oleomargarine" from the time the ingredients are assembled until it is packed for shipment to the markets of the world. We observed the various processes of manufacture and particularly that of the high grade "Oleo-



THE WHITE TILE KITCHEN.

margarine," which contains 23 per cent of pure uncolored butter, produced in the creameries of Illinois and Wisconsin and to which is added oleo oil and neutral lard. In making Oleomargarine, large tanks are filled with the ingredients and churned from 10 to 15 minutes, each one of these tanks producing



"WORKING" AND SALTING OLEOMARGARINE.

from 2,400 to 2,500 pounds of Oleomargarine at each churning. In the first tank is added a little salt and after leaving this tank it goes through different processes until finally before it is set aside to temper it is properly salted to be placed on the market. In salting their product, Armour & Company use exclusively Ashton salt, which is imported from England.

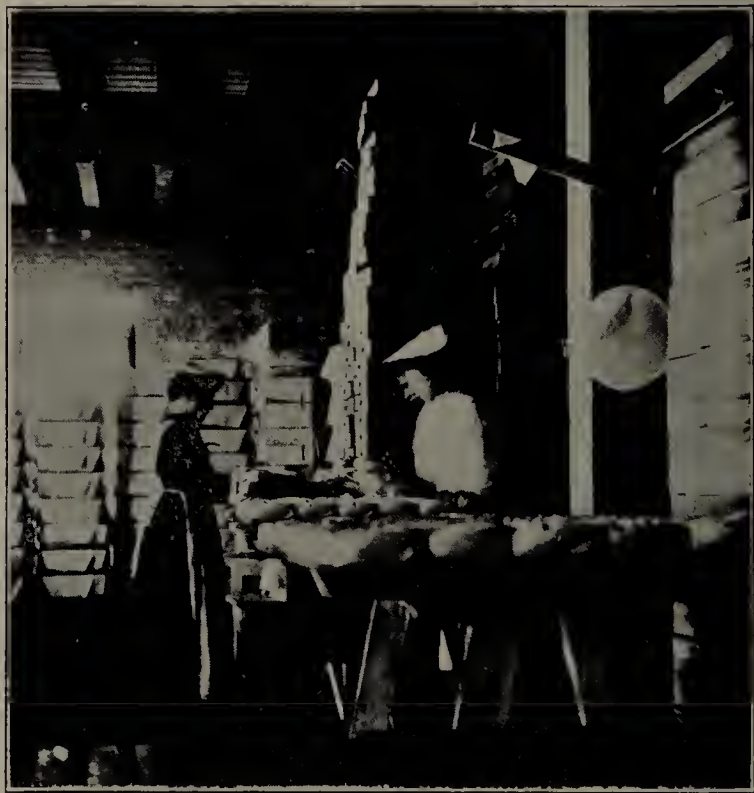
In the handling of Oleomargarine from the first step of its manufacture until it is placed in tubs or prepared ready for the wrapper it is handled entirely with paddles, ladles or cheesecloth netting. It is all

worked in butter workers and in every part of the manufacture the greatest of care is taken that it may be perfectly clean. The Federal Government has an inspector present all of the time during manufacture of this product, whose duty it is to see that it is manufactured according to the most sanitary rules and on each package of Oleomargarine before it is permitted to be sold the United States Government requires to be stamped by the inspector as follows: "U. S. In-



INSPECTOR FRANK HOEY EXAMINING A SAMPLE OF PEANUT OIL NOW BEGINNING TO REPLACE COTTON-SEED OIL IN THE MANUFACTURE OF SOME GRADES OF OLEOMARGARINE.

spected and Passed, Under the Act of Congress of June 30, 1906; Establishment 2-A." This requirement has been opposed by some manufacturers of oleomargarine, but we were informed by Mr. Urion, who is the attorney for Armour & Company, that their company had no objections to putting this statement on the goods and had been complying with this requirement. This is a guarantee by the Federal



WRAPPING OLEOMARGARINE PRINTS WITH PAPER CONTAINING GOVERNMENT STAMP OF PURITY.

Government that each package containing the statement is absolutely pure and wholesome.

We next went to the hog slaughtering department, to which we were accompanied by E. C. Hall, assistant superintendent, we made particular note that though it was Saturday afternoon, after nearly an entire week's work had been done, and we could not

help but be impressed with the fact that while there was present blood and some offal, yet every evidence assured us that it was but the result of the day's labor and we were satisfied and even surprised that the place



ILLINOIS FOOD INSPECTOR JUDGE J. C. EAGLETON, ACCOMPANIED BY HIS WIFE AND DAUGHTER, WATCHING THE CONVERSION OF HOGS INTO PORK.

could be so very clean. Armour & Company have two large wheels to which the hogs are attached and by the revolution of the wheels the hogs are suspended and carried to the place where they are killed. At

the time we were present but one of the wheels was running at a capacity of about 650 per hour. The capacity of both wheels is 1,500 per hour. After the killing the hogs are carried by machinery into a large scalding tub 40 feet in length for softening the bristles, from where they are carried through a upright machine arranged with knives or scrapers where the hair is scraped off, after which they have to pass an inspection by a veterinary surgeon in the employ of the United States Government who makes a large incision across the neck and through the jowls, where the glands of the head are inspected, and if found to be diseased is immediately tagged as condemned and is disposed of as we hereafter mention. Those passing this inspection, next proceed through a wash room and shower bath, where the hogs are thoroughly washed and where they have more revolving scrapers to remove hair that escaped the first scraping machine, and after leaving this place they pass on a moving rail and pass through a shower bath and then on to a line of men whose duty it is to scrape with knives all of the hair and bristles not theretofore removed by machinery. After this is done, they are cut open and immediately come to another inspector whose duty it is to examine the liver, the lights and intestines and all the other internal parts of the animal, and on this inspection as in the other one mentioned, if there is evidences of disease, the animal is condemned and goes to the U. S. Government hog retaining room for final examination, where the head veterinary surgeon in the employ of the Government makes a careful examination of the parts condemned and if any part of the animal condemned is fit for any purpose it is permitted to be used. In incipient cases of tuberculosis,



"FINAL MAN," GOVERNMENT INSPECTORS AND CONDEMNED ANIMALS.

where the infection is confined to a gland, it is permitted to go to the lard tank, where a temperature of 240 degrees for four hours is maintained. In all other instances, the animal is condemned and sent to the rendering tank, and is eventually manufactured into fertilizer. That there may be no opportunity to get a condemned animal that is ordered to the rendering tank placed on the market, the United States Government keeps an inspector present whose duty it is to accompany each condemned animal to the tank where the carcass is rendered, to see that it is placed in the tank, to seal the tank up in such a manner that the carcass cannot be removed and whose duty it is after the animal has been converted to grease to break the seals upon the tank and permit the removal of the contents. It is also the duty of this inspector to take the same care over animals that are not permitted to go on to the market as meat, but are permitted to be rendered into lard. We were present and saw the "final man" examine the spleen of a hog condemned for tuberculosis. He called our attention to probably a half dozen very slight white spots and upon taking a knife and cutting into the spot he showed us very clearly the presence of the tubercular deposit. In this department the Government has eight inspectors, four of them veterinary surgeons whose whole duty it is to inspect the animal slaughtered for the purpose of discovering disease. There is also maintained in the Stock Yards a number of Government inspectors whose duty it is to inspect and condemn animals that are unfit for food where that condition is revealed before killing.

The parts of the animal that were diseased were such as could only be discovered by persons skilled in

that particular line of work. Nothing but the eye trained to that service would discover many of these cases. While there is a small per cent of the animals condemned, yet that small per cent might cause a spread of some contagion that would be serious. But



ONE OF THE MANICURE ARTISTS AT WORK.

for this careful espionage the danger would always be present. It is impossible for these things to be discovered except by men who are trained for it. This could not be discovered by the farmer in slaughtering



PORK CUTTING DEPARTMENT.

his winter's meat nor by the ordinary butcher, nor would it be discovered by the men engaged in this packing plant were it not for the fact that men whose practical experience in that line of work make them experts to make the inspection.

After leaving the slaughtering room, we went to the cutting room, the meat smoking room and the cooling room, in each one of which the greatest of care is used for the purpose of keeping the different departments clean. After the animals are cleaned and cut in halves, they are sent to the cooling room, where they remain 48 hours, the last 24 of which is at a temperature of from 32 to 40.

In the sausage room were employed men who did

room wherein they can put their street clothes at the time of going to work and wherein they can place their working clothes when leaving the building, and in this room is arranged conveniences for the women, such as chairs, tables, one corner of the room being devoted to a couch with a table and clean bed linen for cases where some of the women working in the department should become suddenly ill, where they are permitted to remain until such time as they get better, or if it is a serious matter, they are taken to the hospital maintained by the company, in which is employed two physicians with trained nurses and everything necessary for a well equipped hospital, where any injuries



BEEF KILLING ROOM AT ARMOUR & COMPANY'S PACKING HOUSE.

the "stuffing" of the sausages and a large number of women whose duty it was to tie the sausages after they were stuffed, and in another department connected with the sausage making room we found a very large number of women engaged in cutting lean meat from fat. This is piece work, each woman being paid in proportion of the amount of lean meat cut off by her during the day. These women, those engaged in the sausage room and in the lean meat cutting department, together with the women engaged in the different departments in the plant, are each provided with ample rooms for toilet with lockers in the toilet

to the employes are attended to without charge, but the principal work of the medical corps is to constantly investigate the health of the workers as an added safeguard to the public. That the company works to secure the greatest cleanliness on the part of the employes is evidenced by arrangements for baths and also by the employment of manicures, whose duty it is to manicure the hands of all female help who are employed in the plant. Each one comes around in their regular turn to have their hands manicured and properly cared for about three times a week. This has excited a considerable pride among

these employes and they use every precaution that they can under their limited opportunities at their homes to help in this work. We saw numbers of cuspidors and galvanized iron waste boxes and signs throughout the plant containing warnings to the foremen of the different departments and to all employes, visitors, etc., that they must not spit upon the floor, that the foremen were responsible for the departments and that they must keep them clean.

In the pork cutting department we saw them removing the pork loins and wrapping the various cuts in oil paper and made ready for shipment.

In the canning department, which has been newly constructed, the floors are of cement, the machinery white enameled, presenting a very attractive sight. The tables for cutting and trimming are of maple and

been applied at all and followed on down and looked into the different smoke houses where the hams were in different stages of being smoked and saw the smoke as derived from the wood fires. No preservatives are used in the preparation of cured and smoked meats, except salt and saltpetre, being strictly prohibited by law.

After the meats are smoked they again pass an inspection of the employes of the company and each ham or piece of meat before it is permitted to go on the market is tested by an inspector with a "trier" to see if it is sweet and not tainted and fit for ham consumption.

In Armour's beef killing and sheep killing departments the U. S. Government supervision is carried on as rigidly as in other departments.



BEEF EXTRACT DEPARTMENT.

sanitary in design, and all employes dress in white cotton uniforms that are laundered free and furnished clean each morning. No preservatives or coloring matter are allowed in preparation of canned meats and the Armour labels correctly describe the contents of each package.

In the smoke rooms our attention was called to the fact that many persons have the idea that the packing house does not use smoke but use some preparation instead. We were informed that they did not use it because there was nothing else that answered the purpose and because of the fact that it would not be permitted by the Federal Government if they wanted to. We then inspected the hams as they were placed in a smoke house and before the smoke had

The Federal Government has absolute supervision of the sanitary condition of the packing plants. We were informed that to keep the plant clean, in the hog killing department alone the company allows forty men two hours time each day in cleaning up for which "full" time is paid. It requires one-fifth of the entire time of all workers in the various departments for cleaning up, in which the fire hose is the chief factor. The company maintains several shower baths for the killing gangs and those engaged in heavier work. The knives, cleavers, etc., are kept constantly sterilized by means of hot water receptacles handy to all workers at all times.

The cleanliness of the office building is evident throughout every department in this plant. Great

care is taken to furnish the employes with good light and to ventilate the buildings in which they are employed the best that can be done. The ventilation in the buildings where the killing and dressing of meats is the best science has devised. The care exercised by the Federal Government and the effort of the company to meet not only the requirements of the Federal Government but that of every state into which their product is shipped, as well as the requirements of the governments of every foreign country in which their product is sold, brings the production of meat in this plant up to the very highest standard.

Very respectfully,

J. C. EAGLETON,
F. J. HOEY,
State Food Inspectors.

PHYSICIANS AND THE NATIONAL FOOD AND DRUGS ACT.

Effective January 1, 1907.

JOHN URI LLOYD, PHAR. M.

"Be sure you are right, and then go head."

Retrospective.—The early days of American medicine were dominated by the cry for "liberty." At that date the word "liberty" meant, in medicine as in politics, patriotism, fairness from man to man, justice to mankind. A sparsely settled country, having few physicians, necessitated self-educated physicians, the introduction of family medicines and home medication. Not less earnest and honest were the makers and devisers of these home cures, nor less studious the home-bred physician, than were others engaged in the people's welfare. The minister and the physician were often one, and thus became the teachers of the methods of home-medication. "Domestic Medicine" was a necessity in those widely separated households, and such men as Peter Smith were typical of lives sacrificed in its behalf. Some of the most conspicuous physicians of those times wrote domestic works for the people, and taught them the rudiments of home-medication. Their primitive compounds and derivatives thereof, under scientific names, are today given places in our Pharmacopœias. These home-remedies were usually simples, such as salves, cough syrups, tonics, febrifuges, etc., made of plants and plant products. They were crude and often violent, but as a rule not harmful, as concerns narcotics and anodynes. In these times and under these influences and conditions was born the American, or Eclectic School in Medicine.

But as time passed, the making of primitive home medicines flowed into other channels. Imposters appeared who acted upon the principle that the "people's rights" demanded that all forms of selfishness that could be practiced were allowable in this "Land of Liberty." The old-style family medicine business was insidiously usurped by the man who claimed the right to dose his fellowmen with harmful drugs, with slave-breeding narcotics, with demoralizing stimulants, without let or hindrance, by reason of the American idea that restriction, even in this direction, meant loss of liberty to an individual, who was a part of the people. Liberty to do right was thus perverted into license to do wrong. America became a land of medical self-dosing freedom, to whosoever cared to mislead, to abuse, to mistreat her citizens under any guise whatever, that related to either harmful or worthless medication. This condition of affairs increased, insidiously, until at last even the popular cry of "Liberty" in a

country of licensed liberty, could not stem the torrent of protest of an incensed and indignant community who found the sacredness of home and of family invaded by the grossest kind of medical impositions in which company the good was not to be distinguished from the bad. The evil culminated when in the closing years of the last century, the German synthetics, the heart-depressants, the coal-tar energetics, fostered under the care of the regular medical profession, were made into tablets, pills and powders by charlatans, politicians, and such, and were sold by whosoever cared to do so, in death-dealing quantities, as headache cures, etc., to whoever would innocently take them. Then arose an army of Americans demanding that in these directions the term *Liberty* be restricted.

Scope of the Bill.—Aiming as it did at the indicated phases of corruption, this law struck all the makers and users of medicines, foods, and drinks. Such were its outreaches, that its authors scarcely realized the extent of its ramifications. Industries long established and seemingly unconcerned, were destined to be revolutionized. Every article of food designed for interstate commerce or sale in a territory, all remedial agents, crude drugs, flavoring extracts, alcoholic liquors, the concoctions sold as stimulating cordials and drinks, and the popular medicinal stimulants, legitimate and illegitimate, were included in its scope. A great blanket, this bill knew no difference between men, so far as surveillance and inspection of products were concerned. The *people* were to be cared for, the individual's *stomach* became at last a ward of the nation.

The man who put salicylic acid into oysters, benzoate of sodium into catsup, or borax into beef, as well as the man who supplied food-products without such substances, were alike to be watched.

The makers of so-called "medicines" used as stimulants, in wine-glass doses because of the alcohol in them, and the makers of legitimate medicines necessarily containing alcohol as a solvent, but in which the alcohol is inappreciable as a stimulant by reason of its minute dose, are classed together. Alcohol is alcohol, in the eyes of the law. Whether prescribed in the fraction of a drop by the trained physician, or taken by the glassful under the name of an artfully advertised home-remedy, its amount must now be given on the label.

Harmful secret mixtures containing alkaloids, such as cocaine and morphine, sold the people, are included with the same substances legitimately prescribed by physicians as tablets, pills, prescriptions or powders. Narcotic alkaloids, if abused, are perhaps used to greater harm than any other form of medicine, and physicians prescribing them legitimately must obey the law's exactions concerning their use, and observe the law's restrictions concerning their distribution, as strictly as must persons who heartlessly craze their victims by cocaine, or lead them into slavery by morphine.

Long-established family remedies, harmless, perhaps, as concerns their effects in home self-treatment, useful to the users of simples, meet the same law their disreputable companions must face.

Briefly, the national law, effective January 1, 1907, embraces about everything that can be corrupted or misbranded, from maple syrup mixed with glucose, to assafetida mixed with sand. It demands that the substances designated in its details under the rulings of the committee (Article 28, pages 7-8) must be pub-

lished on every label when sold as drugs. No distinction is made between charlatan, physician, dispensing pharmacist or manufacturer. The awakened people had at last said to wrong doers, "No longer can you practice your art without a criminal prosecution by the United States government." But since the law has no favorites, whoever breaks it (be it by intent, ignorance or indifference), becomes a wrong-doer. And since wrong-doers do not brand themselves, the government must find them.

The Slumberers.—The majority of the people concerned in this enactment thought only of *corrupt* wrong-doers. Few imagined that persons trying to do right had any concern in its enforcement or need be put to any trouble or expense whatever. As regards medicines, only the parties whom the magazines had so publicly attacked, and such as they, were thought of. Fair pharmacists and legitimate physicians gave the law no concern, for they did not include their products in its rulings. Thus the professions and others involved slumbered, indifferent to the fact that this law demanded, in its enforcement, that the regulations which were to control the wrong-doers, must also, in its exactions, apply to whosoever sold the same materials legitimately. Narcotic alkaloids, heart depressants, narcotic drugs, alcohol, chloroform, ether, and such are, by this law, to be exposed to view by the prescribed form of label, whenever sold in interstate commerce by anyone. Whoever sells them in any territory, the District of Columbia, or across any state line in America, must do so under the exacting conditions imposed by the departments of the government whose duty it is to enforce the law.

The Second Awakening.—During the two months following the passage of the bill in July, 1906, neither pharmacist, physician, importer, nor dispenser of drugs gave the law the least concern. None seemed to appreciate the fact that January 1, 1907, was approaching, when, under the law's exactions, they would all come under the surveillance of the government. In September, 1906, came the awakening. The committee appointed by the government, Dr. H. W. Wiley, chairman, advertised that they would meet in New York and confer publicly with interested parties. They also announced their tentative rulings, showing who and what were concerned. Like the shock of a volcanic explosion came these rulings to the abruptly awakened sleepers. Pharmacists, liquor men, importers, manufacturing druggists, proprietary medicine men, and participants in connected and yet separated interests, now perceived their dilemma. They took the first train to New York. At the meetings of the committee, which continued a week, it was seen that all these business interests must be revolutionized. It was also perceived that no favoritism was to be shown anyone, and that the regulations this committee would adopt would be enforced, to the minutest details, and regardlessly. Millions of dollars were involved. An untold amount of care and much expense must hereafter be constantly exercised in order to protect both manufacturers and the patrons of the many interests concerned.

Conditions Under Which the Government May Prosecute.—Remember, the government has no power, according to this bill (if at all), to disturb or regulate the internal affairs of any state. Consequently, this national law does not presume to dominate business *within a state*. It does, however, regulate business within a territory, and also within the District of

Columbia, and applies to any interdicted substance whatsoever that, in an original container, in commerce, crosses a state line, whether carried by messenger, by mail, by express, or by freight. It applies alike to importers, to jobbers, dealers in crude drugs, retailers of medicines, manufacturers big or little, and to all compounders, dispensers and prescribers, if they do interstate business. No man who sells crude drugs, or manufactured products for use in prescriptions, or in mixtures, is absolved from its regulations. Like a thunderbolt came the perception of these facts to men engaged in these various interests.

Physicians' Prosecutions Necessary.—It is necessary to the law's vitality, that no one be exempted. Should physicians be excluded from its penalties, the law concerning impostors would fail. Many pharmacists would also be exempted, for numbers of these are physicians. They, too, must come under the restrictive clauses, regardless of either their methods or their products. The greatest harm done the people in the line of disturbing narcotic alkaloids, coal-tar synthetics, and harmful secret mixtures, is accomplished by persons sailing under the name *physician*, or by adventurers, who employ physicians in order to get their business legalized. The credit of the profession demands that the name *physician* be not therefore protected in whatever a man calling himself "physician" may wish to accomplish. To do this would protect specialized fraud, on an appalling scale. I accept that the rule that applies to fair pharmacists and otherwise pharmacists, applies alike to fair physicians and otherwise physicians. *The law and the rulings must be observed by all who sell restricted substances.*

PASTEURIZED MILK APPROVED.

Nathan Straus of New York has completed in London a series of demonstrations of the value of pasteurization as a method of making milk safe and free from the germs of disease. Daily exhibits have been made under the direction of Dr. Arthur Randolph Green, who has charge of Mr. Straus' New York laboratories, and Dr. C. H. Yattman has delivered lectures on the raw milk as a disease carrier.

These demonstrations have attracted the attention of medical men, health officers, philanthropists and mothers and have resulted in the discussion of pasteurization in nearly every section of the United Kingdom. Steps have been taken to adopt pasteurization in several Scottish and Irish towns, in at least half a dozen cities of England and in Rhodesia.

The Viscountess Helmsley, head of the National Association of Day Nurseries, has taken up the fight for pasteurization. Mr. Straus cabled to her:

"I congratulate you on the noble fight you have made for milk pasteurization. Its adoption has invariably reduced the infantile death rate. I hope England will make a new record in infant life saving."

July 10 the London county council took up Nathan Straus' crusade for the saving of the lives of babies by improving the milk supply. The public health committee made a complimentary report on the demonstrations given by Mr. Straus at his temporary laboratory in Berners street in May, praising Mr. Straus for his zeal in saving lives.

The question of furthering the use of pasteurized milk was discussed and it was the sense of the members that comprehensive plans for carrying out the Straus system should be formulated.

LIFE WORK AND ACHIEVEMENTS OF WILLIAM J. ROGERS.

BY CHARLES ELLEY HALL.

The patriotic American, who at the same time appreciates the ethnological process of formation through which his country has been passing for more than a century need not see any reason to deprecate, or to

actual position of primary importance. Such a case is that of William J. Rogers, president of the Borden's Condensed Milk Company, born in May, 1843, in a house which then occupied the southeast corner of Greenwich and Franklin streets, Manhattan, within one block of the present headquarters of the business over which he now presides.



WILLIAM J. ROGERS.

apologize for the undeniable fact that a large number of those who have built up our immense industries have been foreign-born citizens. And yet the native American, particularly the native New Yorker, may fairly indulge in a little sentimental gratification when he contemplates the case of a New Yorker by birth, by early education and by business training, who has taken up one American industry in its day of small things and by dint of his own special abilities and his own moral strength and integrity pushed it into its

Mr. Rogers had the initial advantage of being, in the best sense, "a son of somebody." His father, Thomas Rogers, a sturdy product of County Carlow, Ireland, came to New York early in the nineteenth century, embarked in the grocery and provision business, and on June 11, 1836, married Miss Eliza Smith in St. Luke's Episcopal Church, the same church where thirty years later (April 26, 1866) William J. Rogers was married to Miss Mary J. Jeffers. The progeny of this union were brought up in all the salutary strictness

of discipline that might have been expected, and in these later days William J. Rogers is one of those staunch Episcopalians who can look back with satisfaction upon an old-fashioned childhood, when his parents, themselves attending two church services every Sunday, made him attend two sessions of Sunday school. In 1847 Thomas Rogers adventurously built himself a house in the then suburbs far from the existing center of New York, at the corner of Fortieth street and Seventh avenue, and opened there a general provision store, anticipating that the neighborhood would soon become sufficiently well peopled to insure a large patronage. Here the school days of William J. Rogers continued; they ended in the old public school number 35, under Principal Doan, and also Thomas Hunter, who later became president of the Board of Education of New York and who is now president of the Normal State College of New York.

Meanwhile the family once more changed their domicile. From being a successful provision dealer, Thomas Rogers had become a successful building contractor, sharing in the erection of (among others) the original St. Thomas' Church, on Forty-ninth street and Fifth avenue, and had removed from Fortieth street to Twentieth. William J. Rogers thus had good moral and mental training until his fifteenth year, when he may be said to have first entered upon that business career, which he has never deserted for any other, from which he has never let any other business distract any part of his attention, and to which he has brought the elevating influence of clean, straightforward principles. This was when he became a clerk in the employ of Henry A. Kerr, corner of Broadway and Astor place, one of the leading grocers in New York in those days. In that same period the American people were preparing themselves for the storm of civil war that was soon to burst. When it did burst, William J. Rogers, in his eighteenth year, was one of the first to answer Lincoln's appeal for men to uphold the Union by force of arms. On April 19, 1861, he was mustered into the United States service as a private in Company B, Hawkins' Zouaves (Ninth New York Volunteers). Incredible as it may seem, the father followed the son's example only a few months later. For once in his life Thomas Rogers, born in the year 1800, forsook the path of strict veracity when, in July, 1861, he gave his age as forty-five, in order to be enlisted in Colonel John Cochran's First Regiment, U. S. Chasseurs—a lapse which may well be forgiven him.

Every history of the Civil War tells of the exploits of Hawkins' Zouaves. Among those exploits was the famous charge at the battle of Antietam, when the regiment lost 67 per cent of its actual strength. In this glorious but bloody engagement William J. Rogers was among the wounded; he stuck to the regiment, however, and was mustered out with it at the completion of its term of enrollment in 1863. And here it is interesting to note the fact, and the reason for it, that this youth, who had won unstinted praise for his energy, intelligent initiative and his gallantry during two years of hard campaigning, left the army with no higher rank than that of first sergeant. It was not merely that promotion was more difficult then than at a later stage of the war, but Colonel Rush C. Hawkins, the founder of the regiment, had repeatedly refused promotion to general rank; he would command the Zouaves only while he lived, and so, from a sentiment of loyalty, Sergeant William J. Rogers would

rather be a first sergeant under Hawkins than a colonel in any other command. Shortly after the muster out of the survivors of the original Zouaves, in 1863, steps were taken to form a new regiment to be known as the Second Battalion of Hawkins' Zouaves. The young sergeant was tendered a commission as captain in this regiment, but, owing to an insufficient number of volunteers in time to promptly form the organization, those that were enrolled were transferred to another regiment already in the field.

Returning to civil life at the age of twenty, it seemed to him that the offer of his former employer, Henry A. Kerr, presented insufficient opportunity for the expansion of his energies. His destiny was, in fact, curiously shaping itself. He advertised for employment, received three replies, and discarded two. The reply which it pleased him to notice was from the New York Condensed Milk Company, as it was then entitled. William J. Rogers became a driver of route No. 7 for the enterprise which Gail Borden had then but recently begun to popularize. The public, slow to comprehend a new idea, had not yet been properly enlightened as to the need of a pure milk product, which today it regards as an essential of civilized life. This necessity of a campaign of education and enlightenment dawned upon the mind of young William J. Rogers; besides, the ex-sergeant of Hawkins' Zouaves found the work of a driver for one route decidedly insufficient for his war-hardened energies. He first complained to the secretary that time hung heavily on his hands. Some time later, upon receiving slight encouragement from this quarter, he invented for himself the employment of soliciting, with an extra horse and wagon, for Borden's condensed milk by personally visiting possible customers and leaving free samples. The plan succeeded. Business increased so materially that three more routes were very soon added, and at the close of the war the position as driver of route No. 10 was taken by his brother, Mr. George W. Rogers, who, like himself, had served in the old Ninth New York and who also, to his credit, like his elder brother, has since continuously remained in the employ of the company.

The first youth of William J. Rogers was now past. He had learned in war as a non-commissioned officer in a first-rate regiment lessons that were to be of the highest importance in the development of a peaceful commercial enterprise—the art of handling men, the importance of incessant watchfulness over details, the importance of pushing the charge well home, the inestimable value of creating new business and conforming to new and improved conditions, in all of which the well-being of the consumer must first be considered. These qualities helped to make the company what it is to-day, but there were others which undoubtedly formed a sympathetic bond between young Rogers and his employers. It must have been recognized from the first that this young man's fundamental principle in dealing with others was that which the current talk of our time has named "a square deal."

Like Borden, William J. Rogers was not satisfied to gain customers by giving them their just dues; he perceived the necessity of convincing the farmer, who supplied the raw material, that he, too, was receiving fair and honorable treatment. Again he deemed it essential to success that all important positions in the company be filled only by tried and true men, recruited from the ranks. Every unit must contribute to the upright, progressive methods of business maintenance

and extension employed by this gigantic organization, which is not a trust in any sense of the word. Competition is met by honorable, open methods, and the letter of the law is scrupulously observed on all sides.

In their compliance with these principles, among others, the Borden's Condensed Milk Company to-day occupies a position unique in the commercial history of the world. The universal commendation of the members of the vast army of people supplying the enormous quota of raw materials and supplies and those consuming the vast output of pure food products of the company, fully corroborate these broad-minded, considerate and exacting requirements of efficiency. It has been by this policy that the Borden Company has succeeded in retaining its prestige in the milk supply—the power of insisting upon farm and dairy conditions which might otherwise have seemed overexacting, without which no amount of clever handling could have enabled it to maintain its reputation for an hygienically perfect product.

The most sanguine expectations of the founder of the business in relation to its future have been vastly exceeded and surpassed. As indicating the present scope of the company's operations, it is interesting to state that they now market the entire milk supply from over 145 receiving stations and factories, situated in the choicest dairy sections between the Atlantic and the Pacific. New York City and suburban towns get the bulk of the fresh milk supply daily from Eastern districts, Chicago and her suburban towns receiving the Middle West supply daily. The greater part of the Borden business, however, lies in the manufacture of condensed milk, evaporated milk and malted milk. One large department, a growth during the past ten years, is devoted exclusively to the manufacture of caramels and milk chocolate. The name "Borden" is synonymous with "Eagle Brand," which is doubtless as widely known in the homes of the world as any other trade-mark. Under the direction of Mr. Rogers this concern is now the largest and most important factor in the world in the practical development of sanitary milk products. Its educational work is constantly augmented by a well-organized corps of capable veterinarians and inspectors, who supervise and fulfill the rigid requirements necessary for the production of pure and wholesome milk. The administrative policy of the company does not permit of the adoption of untried theories and "fads"; they "hold fast to that which is good" by first proving to their entire satisfaction that the consumer is supplied with the best that science, skill and means produce.

Of pronounced character and modest disposition, and with rare devotion to family and friends, it is pleasant, too, to trace the old habit of faithfulness to duty in the civil life of William J. Rogers. As he had stuck to the Hawkins' Zouaves in war, so he stuck to the Borden Company in peace. Having attained a high position (without the accompanying wealth) in industrial life, William J. Rogers has again and again been solicited to let his name, if not his power, be used in the development of other enterprises, but always in vain. Occasionally people not familiar with the facts mistake him for another gentleman of prominence of the same name. This company is still in control of the original owners or their heirs, no outside influence ever having dominated in the policy of the business. No other organization whatever but the great Borden Condensed Milk Company can boast of his active membership in its directorate. And this loyalty, combined

with his before-mentioned principle of "a square deal" and a quality of hearty human good fellowship, has led him to shape the company's invariable policy in regard to its employes. To him is largely due the method of business by which some time ago all of the men occupying important positions were enabled to become stockholders and thereby promoted the general feeling among both the stockholders and employers that they are all comrades in one great industrial corps.

It was in 1884 that Mr. Rogers, after being for some time an invaluable aid to Mr. Klemm, the former secretary and manager, succeeded to that double office upon his death. Several years later H. Lee Borden declared to the company that, while he appreciated the honor of being its president, he felt it but right that the man who actually did the work and whose directing influence permeated every department, should also ostensibly hold the office. That man was William J. Rogers. He was then elected president of the company whose employ he had entered during the Civil War, and as its president he still continues after a service of nearly a half century to carry its prosperity and its beneficent activity to greater and greater heights yearly.

CALL FOR THE TWELFTH ANNUAL CONVENTION OF THE ASSOCIATION OF STATE AND NATIONAL FOOD AND DAIRY DEPARTMENTS.

July 14, 1908.

Dear Sir—The twelfth annual convention of the Association of State and National Food and Dairy Departments will be held at Mackinac Island, beginning Tuesday, Aug. 4th, and continuing during the balance of the week.

This convention is to be the most important in the history of the Association, and it is very desirable that every member, as far as possible, be present. It is desirable that every state having food laws be represented, for matters of vital importance to the future welfare of the Association and to the upbuilding of the cause of pure foods must be decided upon at this time.

Those coming from the West via St. Paul will find the best railroad route via the Soo Road, Sault Ste. Marie line, changing at Trout Lake Junction for St. Ignace; or they may go from Chicago or Duluth by steamer.

Those coming from the South via Chicago could probably arrange to go by steamer from Chicago or by Grand Rapids, Indiana Railway, direct to Mackinac City.

Those coming from the East via Toledo and Detroit can take the steamer at Detroit, or via Michigan Central, and go direct via Bay City to Mackinac City. While those coming from the extreme East, including Northern New England, can probably best reach Mackinac Island via Canadian Pacific Soo Road, changing at Trout Lake Junction, west of Sault Ste. Marie, for St. Ignace.

Headquarters will be the Grand Hotel. The program and further notice will be sent you at an early date. Do not fail to be present, and be prepared to aid in determining the future policy of the Association.

Yours truly,

(Signed) E. F. LADD,
President of the Association.

CASES BROUGHT BY THE ILLINOIS FOOD COMMISSIONER.

The state's attorney of Cook county has finally brought suit against grocers, peddlers, etc., who were caught last January and February selling colored oleomargarine for butter. The cases will have to be brought under the old law, as more than 90 days have elapsed since the offenses were committed, which lapse of time under the law passed last winter would secure the release of every mother's son of them.

The delay has in fact operated to free all the parties caught handling renovated butter, as these cases could not be brought under the old law.

The following is a list of the defendants, witnesses, etc., in the oleomargarine cases brought. The cases were all postponed and will not come to trial before September 17th:

LIST.

(Two counts.)

These cases charge the defendant with selling imitation butter for butter and also keeping colored oleomargarine for sale:

Card. No.

- 1589—March 3, 1908. Jas. C. Williams, 370 E. 55th street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1591—March 3, 1908. F. E. Paulson, 7110 Cottage Grove avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1593—March 4, 1908. H. Rulfs, 6880 S. Halsted. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1595—March 4, 1908. Alexander Coyle, 3709 S. Halsted street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1592—March 4, 1908. Garland White, 6901 S. Halsted. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1594—March 4, 1908. James Geddis, 6714 S. Halsted. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1597—March 4, 1908. John Grogan, 5526 S. Halsted. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- April 9, 1908. Grant Walker, Chicago Heights. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1618—April 6, 1908. E. Haas, 547 S. Halsted street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1617—March 26, 1908. J. C. Williams, 346 E. North avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1614—March 16, 1908. Margaret Tackmann, 649 W. Van Buren street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1568—February 15, 1908. H. F. Jorgenson and J. L. Jorgenson, 4720 Ashland avenue. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1577—February 24, 1908. K. K. Brinnie, 871 W. North avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 8210—February 13, 1908. W. E. Bayles, 6328 Ashland avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 8209—February 13, 1908. Garland White, 1713 W. 63d street. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1598—March 6, 1908. William F. Higgins, 1341 W. 22d street. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 673—November 5, 1907. Andrew Amundson, Ole K. Amundson and Adolph Amundson, 760 North avenue. Witnesses: F. J. Hoey, Lucy Doggett.
- 674—Same as 673.
- 10154—March 6, 1908. John R. Roney, 733 W. 47th street. Witnesses: Frank Hoey, J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 10153—Same as 10154.
- 10156—March 7, 1908. Emil A. Anderson, 6313 Peoria street. Witnesses: Frank Hoey, J. L. McLaughlin, Lucy Doggett.
- 10155—Same as 10156.
- 793—January 20, 1908. Charles Bloom, 2852 Archer avenue. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 794—January 20, 1908. John Boal, 2989 Archer avenue. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 791—January 17, 1908. A. H. Lund, 4340 State street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 792—January 17, 1908. H. Whittaker, 347 E. 33d street. Witnesses: Harrison Kennicott, F. J. Hoey, B. C. Gardner.
- 755—December 9, 1907. F. S. Goll, 13 N. Kedzie. Witnesses: Harrison Kennicott, F. J. Hoey, B. C. Gardner.
- 787—January 13, 1908. Walter Kelsko, 56 State street. Witnesses: F. J. Hoey, Harrison Kennicott, A. N. Bennett.
- 804—January 25, 1908. Theo. Rulfs, 6217 S. Halsted street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 803—January 24, 1908. John R. Roney, 625 W. 63d street. Witnesses: Harrison Kennicott, F. J. Hoey, B. C. Gardner.
- 799—January 22, 1908. John Kohler, 3847 S. State street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 817—February 6, 1908. J. G. Paule, 339 E. 63d street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 808—January 29, 1908. G. Detta, 979 Milwaukee avenue. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 1600—March 5, 1908. Ed. Haas, 547 S. Halsted street. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1608—March 11, 1908. G. H. Jacobson, 935 Lincoln avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1612—March 13, 1908. Emil Anderson, 6213 Peoria street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1605—March 11, 1908. Julius Peterson, 1679 Lincoln avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1567—February 11, 1908. Ole Balsleo, 1547 W. 63d street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 7000—February 6, 1908. F. E. Duer and W. C. Scott, 58 S. State street. Witnesses: H. E. Schuknecht, A. L. Nehls.

- 754—December 7, 1907. F. E. Duer and W. C. Scott, 58 S. State street. Witnesses: Frank Hoey, H. Kennicott, L. F. Doggett.
- 794—January 20, 1908. John Boal, 2989 Archer avenue. Witnesses: H. Kennicott, Frank Hoey, B. C. Gardner.
- 1564—February 11, 1908. John R. Roney, 625 W. 63d street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1609—March 11, 1908. C. H. Jones and F. H. Jones, 471 Lincoln avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1566—February 11, 1908. H. Ostermeyer, 1235 W. 63d street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1610—March 12, 1908. J. T. Butler, 1910 Railroad avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 796—January 21, 1908. H. T. Jurgenson and E. T. Jurgenson, 6243 S. Halsted street. Witnesses: Frank Hoey, H. Kennicott, B. C. Gardner.
- 1583—February 26, 1908. Ed. Haas, 4803 Ashland avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1581—February 25, 1908. J. J. Seimers, 231 Blue Island avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 814—January 31, 1908. C. R. Kenyon, 396 E. Division street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 815—January 31, 1908. C. E. Freeman, 367 E. Division street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 806—January 28, 1908. Jay C. Williams, 370 E. 55th street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 797—January 21, 1908. P. Zictman, 6236 S. Halsted street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 790—January 16, 1908. John R. Roney, 3001 State street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 798—January 21, 1908. H. F. Marhoefer, 6242 State street. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 775—December 16, 1907. C. Pille, 1570 Western avenue. Witnesses: F. J. Hoey, Harrison Kennicott, B. C. Gardner.
- 1615—March 16, 1908. William F. Anderson, 373 W. Van Buren, 373 W. Van Buren street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1611—March 13, 1908. T. H. Davidson, 508-510 W. 79th street. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1613—March 13, 1908. Edward F. Meier, 924 W. 63d street. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1574—February 21, 1908. Frederick W. Moeller, 930 Milwaukee avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1590—March 3, 1908. E. J. Callahan, 6327 Cottage Grove avenue. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1620—April 9, 1908. Charles E. Greenwald, Chicago Heights. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.

- 1580—February 25, 1908. G. H. Sorg, 219 Blue Island avenue. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1584—February 28, 1908. J. C. Paulle, 339 E. 63d street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1585—Same as 1584.
- 1586—March 2, 1906. P. A. Nystrom, 1884 Milwaukee avenue. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1588—March 2, 1908. W. F. Anderson, 1652 Milwaukee avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.

LIST.

(One count.)

These cases are brought for selling colored oleo-margarine.

Card No.

- 1571—February 17, 1908. C. Beusch, 483 S. Ashland avenue. Witnesses: O. V. Fox, J. L. McLaughlin, B. C. Gardner.
- 1565—February 11, 1908. H. L. Otto, 1152 W. 63d street. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1572—February 18, 1908. Albert Samuels, 2814 Archer avenue. Witnesses: J. L. McLaughlin, O. V. Fox, B. C. Gardner.
- 1582—February 26, 1908. D. Rosenthal, 165 W. 69th street. Witnesses: McLaughlin, Fox, Gardner.
- 776—December 12, 1907. B. L. Crawford, 371 E. 4th street. Witnesses: Hoey, Kennicott, Nehls.
- 756—December 9, 1907. F. S. Goll, 13 N. Kedzie avenue. Witnesses: Hoey, Kennicott, Gardner.
- 1570—February 17, 1908. J. Brills and C. Haas, 4945 S. Ashland avenue. Witnesses: Fox, McLaughlin, Gardner.

ADULTERATED OR MISBRANDED FOOD PRODUCTS IN NORTH DAKOTA

I, I. W. Healy, county auditor of Burleigh county, N. D., hereby certify that the following is the list of adulterated or misbranded beverages and food products as furnished me by E. F. Ladd, chemist and food commissioner.

I. W. HEALY,
County Auditor.

I, E. F. Ladd, Chemist of the North Dakota Government Agricultural Experiment Station and Food Commissioner for North Dakota, do certify that the list of food products and beverages, herein specified, have been analyzed during the six months preceding July 1, 1908, and the same found to be adulterated or misbranded within the meaning of the pure food law, as shown in each individual case. I further affirm that this is a true and correct list to the best of my knowledge.

E. F. LADD,

Chemist and Food Commissioner.

Subscribed and sworn to before me this 30th day of June, 1908, Fargo, North Dakota.

(Seal)

ALFRED H. PARROTT,

Notary Public, Case County, N. D.

My commission expires May 21, 1913.

PRESERVES, JELLIES AND JAMS—ILLEGAL.

Lab. No. 5092. Brand, Red Raspberries. Producer

or jobber, Curtice Bros., Rochester, N. Y. Colored and not labeled for weight.

Lab. No. 5107. Brand, Red Raspberries. Producer or jobber, Curtice Bros. Co., Rochester, N. Y. Not properly labeled and colored.

Lab. No. 5173. Brand, Red Raspberries. Table Preserves. Producer or jobber, Curtice Bros. Co., Rochester, N. Y. Contains foreign fruit.

PEAS—ILLEGAL.

Lab. No. 5225. Brand, Petit Pois. Producer or jobber, Reid, Murdoch & Co., Chicago, Ill. Contains copper salts and not properly labeled.

Lab. No. 5264. Brand, Green Peas, "La Deane." Jobber, Fargo Mercantile Co., Fargo, N. D. Contains copper sulphate.

Lab. No. 5470. Brand, Petit Pois, Extra fine. Producer or jobber, J. Ramell, Paris, France. Contains copper sulphate.

Lab. No. 5471. Brand, Petit Pois. Producer or jobber, J. Ramell, Paris, France. Contains copper sulphate.

TOMATOES—ILLEGAL.

Lab. No. 5133. Brand, Tomatoes, Three Star. Producer or jobber, C. Shenkberg Co., Sioux City, Iowa. Contains preservatives and not properly labeled.

MEATS AND FISH—ILLEGAL.

Lab. No. 5098. Brand, Mince Meat, Emery. Producer or jobber, Emery Food Co., Chicago, Ill. Contains borates in considerable amount.

Lab. No. 5189. Brand, Fresh Clams. Jobber, Potter & Wrightington, Boston, Mass. Contains borates.

Lab. No. 5203. Brand, Fish Balls in Fish Bouillon. Producer or jobber, Chr. Bjelland & Co., Staranger, Norway. Contains chemical preservatives.

Lab. No. 5207. Brand, Sardines in Oil, Togo. Producer or jobber, Lubec Sardine Co., Lubec, Minn. Cottonseed oil present, not properly labeled.

Lab. No. 5530. Brand, Mince Meat, True Blue, New England. Producer or jobber, Edwin A. Rice Co., Chicago, Ill. Borax present.

CATSUP—ILLEGAL.

Lab. No. 5139. Brand, Catsup, Virginia. Producer or jobber, Virginia Pure Food Co., Baltimore, Md. Colored with tumeric.

EXTRACTS—ILLEGAL.

Lab. No. 5222. Brand, Extract of Orange, Watkins. Producer or jobber, J. R. Watkins Medical Co., Winona, Minn. Not properly labeled and colored.

Lab. No. 5223. Brand, Extract of Lemon, Watkins. Producer or jobber, J. R. Watkins Medical Co., Winona, Minn. Colored with tumeric; not properly labeled.

Lab. No. 5477. Brand, Lemon Extract, Ivanhoe. Producer or jobber, Wright-Clarkson Mercantile Co., Duluth, Minn. Not full measure.

Lab. No. 5507. Brand, Raspberry Extract, Pure and Concentrated. Producer or jobber, McCormick-Rehnke Co., St. Paul, Minn. Artificial; colored with coal tar dye; falsely labeled; not full measure.

Lab. No. 5548. Brand, Extract of Lemon, Gold Medal. Producer or jobber, Grand Forks Mercantile Co., Grand Forks, N. D. Short measure.

Lab. No. 5591. Brand, Lemon Extract. Producer or jobber, Atwood & Steele, Chicago, Ill. Not standard and short measure.

Lab. No. 5593. Brand, Extract of Pineapple. Pro-

ducer or jobber, Atwood & Steele, Chicago, Ill. Falsely labeled and artificially colored.

Lab. No. 5595. Brand, Extract of Lemon, Golden Rule. Producer or jobber, A. J. Hilbert & Co., Milwaukee, Wis. Colored with dinitroresol.

COFFEE—ILLEGAL.

Lab. No. 5572. Brand, Health Coffee. Producer or jobber, Dr. Shoop, Racine, Wis. Not a coffee.

OLIVE AND SALAD OILS—ILLEGAL.

Lab. No. 5093. Brand, Salad Dressing, "My Wife's Salad Dressing." Producer or jobber, Fred Fear, New York, N. Y. No weight given; artificially colored and not properly labeled.

Lab. No. 5506. Brand, Salad Oil, Loubon. Producer, Glaser-Kohn & Co., Chicago, Ill. Weight not given; cottonseed oil.

DRIED FRUITS—ILLEGAL.

Lab. No. 5113. Brand, Seeded Raisins, Phoenix. Producer or jobber, Phoenix Packing Co., Fresno, Cal. Contains borax.

Lab. No. 5479. Brand, Silver Prunes, Golden Dragon. Producer or jobber, Reid-Murdoch & Co., Chicago, Ill. Sulphites present in considerable amount.

Lab. No. 5499. Brand, Duffy Evaporated Apples. Producer or jobber, American Fruit Produce Co., Rochester, N. Y. Slight trace of sulphites present.

Lab. No. 5514. Brand, Dried Peaches, Oriole. Put up for Reid, Murdoch & Co., Chicago, Ill. Sulphur bleached.

Lab. No. 5516. Brand, Cleaned Currants, Hallas. Producer or jobber, Fargo Mercantile Co., Fargo, N. D. Weight not given; contains borax.

Lab. No. 5517. Brand, Dried Peaches, Golden Dragon. Producer or jobber, Reid-Murdoch & Co., Chicago, Ill. Sulphur bleached.

Lab. No. 5518. Brand, Dried Pears. Packed by H. D. Curtis, Los Catos, Cal. Sulphur bleached.

Lab. No. 5519. Brand, Dried Apples. (Questionable). Jobber, Park, Grant & Morris, Fargo, N. D.

Lab. No. 5520. Brand, Dried Peaches, Star and Crescent. Producer or jobber, J. K. Amsby Co., California. Sulphur bleached.

Lab. No. 5524. Brand, Dried Peaches. Jobber, Stone, Ordean, Wells & Co., Duluth, Minn. Sulphur bleached.

Lab. No. 5526. Brand, Apricots, Red Banner. Packed by Gregory Fruit Co., Colton, Cal. Sulphur bleached.

Lab. No. 5527. Brand, Dried Peaches, Marquette. Producer or jobber, Park, Grant & Morris, Fargo, N. D. Sulphur bleached.

Lab. No. 5532. Brand, Dried Peaches. Producer or jobber, Park, Grant & Morris Grocery Co., Grand Forks, N. D. Sulphur bleached.

Lab. No. 5534. Brand, Dried Figs, California White Figs. Producer or jobber, Reid-Murdoch & Co., Chicago, Ill. Sulphur bleached.

Lab. No. 5535. Brand, Dried Apricots. Producer or jobber, Reid-Murdoch & Co., Chicago, Ill. Sulphur bleached.

Lab. No. 5536. Brand, Dried Apples, Brown Bros.' Evaporated Apples. Jobbers, Nash Bros., Grand Forks, N. D. Sulphur bleached.

Lab. No. 5537. Brand, Dried Peaches, Raindeer. Producer or jobber, Reid-Murdoch & Co., Chicago, Ill. Sulphur bleached.

Lab. No. 5541. Brand, Dried Peaches, Monarch.

Jobber, Stone, Ordean, Wells & Co., Duluth, Minn. Sulphur bleached.

Lab. No. 5552. Brand, Dried Figs, Palmo. Producer or jobber, Toomy Fruit Co., Fresno, Cal. Sulphur bleached.

Lab. No. 5572. Brand, Dried Apples, Choice. Producer or jobber, Fargo Mercantile Co., Fargo, N. D. Sulphites, a very slight trace.

Lab. No. 5573. Brand, Dried Apples, Fancy. Producer or jobber, Fargo Mercantile Co., Fargo, N. D. Sulphites, a slight trace.

Lab. No. 5607. Brand, Dried Pears, Orange Label. Producer or jobber, J. B. Indereiden Co., California. Sulphur bleached.

Lab. No. 5634. Brand, Dried Peaches, M. & B. Packed by Madison & Bonner, California. Bleached with sulphur.

MAPLE SYRUP AND SUGAR—ILLEGAL.

Lab. No. 5117C. Brand, Vermont Syrup. Producer or jobber, St. Paul Refining Co., St. Paul, Minn. Largely cane syrup and falsely labeled.

Lab. No. 5273. Brand, Maple Cane Sugar. Producer or jobber, Marshalltown Syrup & Sugar Co., Marshalltown, Iowa. Not maple sugar falsely labeled.

ICE CREAM—ILLEGAL.

Lab. No. 5473. Brand, Ice Cream. Producer or jobber, O. H. Burnham, Valley City, N. D. Contains gelatin; not standard.

Lab. No. 5475. Brand, Ice Cream. Manufacturer, W. T. Witter, Valley City, N. D. Not standard.

Lab. No. 5479. Brand, Ice Cream. Manufactured by Valley Creamery Co., Valley City, N. D. Contains gelatin; not properly labeled.

Lab. No. 5494. Brand, Ice Cream. Manufacturer, J. C. VanderBie, St. Paul, Minn. Contains gelatin.

Lab. No. 5546. Brand, Ice Cream. Producer or jobber, Block Ice Cream Co., Grand Forks, N. D. Gelatin present.

Lab. No. 5547. Brand, Ice Cream. Producer or jobber, H. K. Geist, Grand Forks, N. D. Gelatin ice cream and not standard.

VINEGAR—ILLEGAL.

Lab. No. 5667. Brand, Cider Vinegar. Jobber, Farmers' Supply House, Fargo, N. D. Below standard.

BEVERAGES—ILLEGAL.

Lab. No. 5656. Brand, Grapemist, Great American. Producer or jobber, American Beverage Co., Atlanta, Ga. Colored with coal tar dye; contains saccharin; falsely labeled.

Lab. No. 5657. Brand, Applemade, Great American. Producer or jobber, American Beverage Co., Atlanta, Ga. Saccharin present; colored with caramel.

Lab. No. 5658. Brand, Pepsette, Great American. Producer or jobber, American Beverage Co., Atlanta, Ga. Saccharin present; colored with a coal tar dye.

Lab. No. 5659. Brand, Peachnip, Great American. Producer or jobber, American Beverage Co., Atlanta, Ga. Saccharin present; colored with caramel.

Lab. No. 5660. Brand, Coca Cream, Great American. Producer or jobber, American Beverage Co., Atlanta, Ga. Saccharin present; caramel present.

MISCELLANEOUS—ILLEGAL.

Lab. No. 5103. Brand, Lime Juice, Monsterrat Pure. Producer or jobber, Evans Sons—Leschen & Webb, New York, N. Y. Contains sulphurous acid.

Lab. No. 5115. Brand, Sweet Pickles, Home Made

Extra Spiced. Producer or jobber, Ringrose Pickling Co., Minneapolis, Minn. Benzoic acid present and not properly labeled.

Lab. No. 5624. Brand, Sweet Pickles, Spiced Hiawatha. Producer or jobber, M. A. Gedney, Minneapolis, Minn.

Lab. No. 5133. Brand, Butter Color, June Fruit. Producer or jobber, Monroe Drug Co., Minneapolis, Minn. A coal tar dye.

Lab. No. 5150. Brand, Sweet Pickles, Gedney's. Producer or jobber, M. A. Gedney, Minneapolis, Minn. Contains benzoic acid.

Lab. No. 5165. Brand, Buckwheat Flour. Producer or jobber, J. P. Shahane & Co., Souris, N. D. Contains some foreign starch.

Lab. No. 5184. Brand, Butter. Producer or jobber, Simon Schmid, Bartlett, N. D. Colored with azo dye.

Lab. No. 5208. Brand, Maraschino Cherries, Eclipse. Jobber, John C. Johnson Co., Minneapolis, Minn. Contains benzoic acid.

Lab. No. 5245A. Brand, Cal. Extracted Honey, Absolutely Pure. Producer or jobber, Nash Bros., Grand Forks, N. D. Largely cane sugar.

Lab. No. 5231. Brand, Choco. Producer or jobber, J. G. Beekler, Chicago, Ill. Contains much foreign starch.

Lab. No. 5234. Brand, Maraschino Cherries, Cortaux. Producer or jobber, Reid-Murdoch & Co., Chicago, Ill. Benzoic acid present; not properly labeled.

Lab. No. 5265. Brand, Pasteurized Butter, Pure Pasteurized Creamery Butter. Producer or jobber, Ideal Cold Storage Co., Wadena, Minn. Short weight; contains coal tar dye; not properly labeled.

NATIONAL DEPARTMENT OF HEALTH.

It ought to be apparent to those who have been strenuously urging a National Department of Health that they have made a tactical error. The Republican machine is opposed to any new departments or any additions to the President's official family. President Roosevelt himself has gone on record as opposing a Department of Health. In the face of these obstacles it is idle to even hope for such a result for years to come and it would have been much more sensible and given much greater promise of success to have worked for a National Health Commission. This might well be composed of three members, a chemist, a sanitarian and a physician. This commission could divide its work into three divisions; for instance, a Division of Sanitation and Quarantine, a Division of Pure Food and Drugs, and a Division of laboratory Research. Each member of the commission could head a division, with proper assistants and a suitable organization for the work he would naturally be called upon to do. Each division could and would co-operate with the others, and a national scheme of public health defense could be developed that would mean everything to the American people.

A commission created along these lines, could, better than in any other way, take advantage of existing conditions and more successfully utilize present efforts and officials. And more than all, its active advocacy would be much more apt to lead to its adoption by those who very evidently control the situation. That this phase of the question is the all important one is shown by the result at Chicago.—American Medicine.

THE AMERICAN FOOD JOURNAL



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THE NET WEIGHT LAW IN NEBRASKA.

There is some confusion as to the scope of the recent decision of the district court of Nebraska as to the Net Weight clause of the Nebraska Food Law. Some claim the decision rendered by Judge Cornish invalidates the entire clause on the ground that it is unconstitutional. Deputy Commissioner J. W. Johnson, however, in a letter to THE AMERICAN FOOD JOURNAL as long ago as last March, contends that the net weight branding clause was not involved as a whole, but the decision was that the net weight clause was not intended to apply to hams and bacon. The reason that the net weight clause was not held to apply to hams and bacon was that the meat was sliced up to the consumer and not sold to him by the package. In confirmation of this view, Commissioner Johnson points out that the very next day after the packing house decision was given Judge Cornish upheld the fine of \$20 that had been assessed against a groceryman for selling unbranded butter packages. In discussing the butter case, the court took the ground that because the butter package could pass itself off for a pound and if short weight could deceive and defraud the consumer, therefore the law was intending the branding requirement as a protection to the consumer from the short-weight cheat. Commissioner Johnson thinks that this same argument applies to the meat package as between the packing house and the retail meat dealer. He says in the letter above referred to:

"The packer ships, for example, a 100-pound meat package to the retail meat dealer, charging him for 100 pounds of meat, say at 22 cents, but there is only 95 pounds, 96 pounds, or 97 pounds of meat, the balance of the weight being made up of cheap heavy paper or wrapping that costs the packers about 1½ cents a pound. My contention is that this Nebraska law in its net weight clause is trying to compel the packer to make an honest statement, not of the gross weight of his package, but of the amount of meat in the package. Testimony in the recent court case shows that the short-weight graft of the packers in Nebraska amounts to over \$90,000 a year.

"This Nebraska pure food law in its net-weight requirements is striking at the short-weight cheat, in the cereal packages, in the mill stuffs, in the butter packages, which before the law was enacted contained only 14 ounces, and if the law is good as to cereal packages and butter packages and food packages generally, why

should it not also be good as to meat packages, in which the short-weight cheat is bold, universal and without excuse."

As to the case now pending in the supreme court of Nebraska, Commissioner Johnson in a recent communication says: "The same question is involved as in the lower court—that is, whether the branding requirement of the law applies to canvas-covered hams and paper-covered bacon."

A decision on this point is expected soon.

CLEAN AND STERILE MILK BOTTLES.

Now that Chicago and several other cities are demanding that milk be marketed only in bottles, it is important that the authorities as well as the customers insist that every bottle is thoroughly clean and sterile before the milk is placed in the bottle. Unless this precaution is taken, bottled milk is the very worst kind of consumer. It does not make poor milk palatable or milk. Bottling only protects milk en route to the consumer. It does not make poor milk palatable or healthful. If that milk is placed in a bottle imperfectly cleaned or worse still in an unsterilized bottle taken from a home harboring typhoid, diphtheria or other infectious or contagious disease, the prospects for a disastrous epidemic is first class. At best or at worst, under the old plan of dispensing milk the customer was served in his own can, which receptacle, even if contaminated, could not spread disease to its source.

It is notorious that families take altogether better care of cans or bottles into which their own milk is collected than they do of the milk man's bottles. If the duty devolves upon the milk man instead of the consumer to see that bottles are clean and sterile the authorities should see to it that every plant is supplied with facilities to accomplish this purpose, which means mechanical washing machines and a steam sterilizer. Of course, this means that the small milk dealer will be driven out of business. But the whole trend of municipal and state control of the milk supply aids the economic tendencies in that direction. Practically the entire milk supply of Chicago, New York and all the larger cities is in the hands of five or six dealers. Ten years ago it was handled by hundreds of small dealers. First came the state and municipal licenses to do business varying each from \$2 to \$25. The larger concerns aided in making the license as large as possible to drive the weaker to the wall and limit competition. The burden of inspection ever fell heaviest on the small and nonconsequential vender. Then came the multiplicity of special laws and ordinances requiring the dealers' name on his wagon, each milk can and finally blown in each milk bottle. The Chicago ordinance requiring all milk to be retailed in bottles will not drive many more dealers out of business in this city. The limit has already been reached. The ordinance may as well be made of some value and serve as a protection to the public instead of a menace by requiring all milk plants to put in and operate up-to-date machinery for cleansing and sterilization of milk bottles.

EGGS RAW AND COOKED.

According to Henri De Parville an egg is cooked to perfection when it has been in boiling or in very hot water three minutes. This degree of heat coagulates the albumen from circumference to center and presumably kills all dangerous germs. However, the egg has never been much abused by doctors. Milk has

come in for all manner of vilification. Meat has been attacked on humanitarian, dietetic and hygienic considerations. Every other food product has been under suspicion as adulterated. Eggs only have escaped censure. Their purity and wholesomeness when fresh have never been questioned and even in their old age the greatest harm they are credited with inflicting on the human race is in interfering with the appetite and spoiling the dress suits of unpopular actors. For these minor sins, several food commissioners are now insisting that only recent, up-to-date eggs be offered on the market. Any other variety, no matter how valuable as antiques, mixed, intermingled or scrambled with fresh eggs, will subject the seller to a fine under the food law.

We anticipate that the advice of Henri de Parville in regard to cooking eggs will not be universally accepted and that the ten-minute, five-minute, three-minute, two-minute and one-minute egg, as well as the uncooked variety, will each for some time to come have a large and enthusiastic clientage.

GASES IN SWOLLEN CANNED GOODS.

Mr. Brooks in the "American Grocer" caustically criticises a scientific article in the "American Food Journal" of last month (see page 21). In regard to the criticism of the scientific deductions from the analysis the authors of the paper are preparing a reply which will be published in our next number. However, the inference that the American Food Journal is biased in favor of meat products because the authors of the article in question experimented only with swollen cans of vegetables, fruits, etc., and not with swollen meat cans, is very far fetched, and we will say that neither in this instance nor any other instance has this journal sought to influence any scientific article—in subject matter, scope or deductions—nor does it intend to do so in the future. We reserve the right, of course, to reject any article written in a partisan, vindictive or narrow spirit. The reason that no canned meats were found among the numerous samples gathered by the Chicago Health Department is much more naturally explained by the fact that swollen meat cans are very rarely met with on the market and we doubt very much whether Mr. Brooks in his own experience has recorded the analysis of such swollen goods and if he has the columns of this magazine are open to the further publicity of the analysis and any deductions to be drawn therefrom which will broaden our knowledge along this line.

PROVIDING FOR ENFORCEMENT OF FOOD LAWS IN THE DISTRICT OF COLUMBIA.

Because of the recent decision nullifying the food regulations of the District of Columbia, Commissioner Macfarland recently arranged for a conference between Federal and District officials to secure co-operation between the Department of Agriculture and the commissioners in protecting the food supplies, especially milk, by utilizing the provisions of the national pure food and drug act.

As a result of this conference, Secretary Wilson authorized Dr. William C. Woodward, health officer, to collect samples under the national pure food law, and directed that a chemist be appointed to make analyses under the direction and supervision of the bureau of chemistry. It also was recommended that if any ap-

parent violations were found they should be certified to District Attorney Baker for legal action.

Dr. R. S. Lynch, chemist of the health department of the District, will be nominated as the chemist to be designated by Secretary Wilson to make the analyses.

In the meantime the District court of appeals will pass on the decision of the police court that the District of Columbia could not prosecute.

TRIBUTE TO CAPTAIN HENRY LOMB.

Rochester mourns the death of one of her foremost citizens, Captain Henry Lomb, president and one of the founders of the Baush & Lomb Optical Company. In appreciation of his beautiful yet busy life more than 10,000 of his friends gathered in and around Convention Hall to pay their last respects to his memory.

A Soldier—he offered his life to his country.

An Organizer—he started business with a capital of \$60 and increased it to as many millions.

A Philanthropist—he gave not only his earnings, but his thought and his time and his best efforts to the betterment of humanity.

He made friends because he was lavish of his own affection. The history of his life will be an inspiration to many a man starting life with the same capital—courage, brains and energy.

A FRESH EGG DEFINED.

The question, What constitutes a "fresh egg?" was settled at the concluding session of the first congress of the French Milk Industry and Dairy Produce societies, recently held in Paris.

After a lively discussion, joined in by 200 members of the congress, the following definition was agreed on:

"A fresh egg is an egg which, on being tested, is found not to have suffered in any way from evaporation and which shows no trace of decomposition."

LILLE LOOSES PAY.

Dispatches from Michigan state that the attorney general has ruled that the state treasurer cannot pay Colon C. Lillie, deputy food commissioner, \$126.10 for services from October 15 to February 21, when he was also acting as a delegate to the constitutional convention. His bill was approved by the auditors and auditor general.

NEW YORK OFFICIAL ACTIVE.

The Food Inspection Office of the Health Commissioner of the City of New York, under the supervision of Bayard C. Fuller, is proving satisfactory to the trade and the consuming public. In one day last week the office condemned over 10,000 pounds of meat and 30,000 pounds of fruit, besides much fish and vegetables.

SPECIAL PROSECUTORS DENIED.

Efforts of M. H. Lamb, a Missouri Food and Dairy Inspector, to have E. A. Krauthoff appointed a special prosecutor to enforce the food law, failed utterly when Judge Patterson of the County Court in Kansas City refused to employ any more special prosecutors.

Dr. H. W. Wiley has now reached such a degree of fame as to be familiarly referred to in the newspapers as "Doc."

Joint Committee on Food Standards

*Representing the Association of
Official Agricultural Chemists:*

William Frear, Ph. D., Pa., Chairman
E. H. Jenkins, Ph. D., Conn., Secy.
H. W. Wiley, Ph. D., Washington, D. C.
M. A. Scovell, Ph. D., Ky.
H. A. Weber, Ph. D., Ohio

*Representing the Association of State
and National Food and Dairy
Departments:*

Richard Fischer, Ph. D., Wis., Vice-
Chairman
H. E. Barnard, B. S., Ind.
Elton Fulmer, M. A., Wash.
E. H. Jenkins, Ph. D., Conn.
M. A. Scovell, Ph. D., Ky

State College, Pa., July 11, 1908.

Dear Sir:

A meeting of the Joint Committee on Food Standards has been called to begin July 31, 1908, at Grand Hotel, Mackinac Island, Michigan, for the consideration of the tentative standards for the schedules of meat preparations, yeast preparations and malt liquors. Suggestions relative to these standards and requests for hearings should be addressed to the Chairman, at State College, Pa., up to July 26th, and after that date at Grand Hotel, Mackinac Island, Michigan.

Very respectfully,

WILLIAM FREAR,
Chairman.

TENTATIVE STANDARDS.

A. MEATS AND THE PRINCIPAL MEAT PRODUCTS.

B. MANUFACTURED MEATS.

1. Manufactured meats. (Standard earlier proclaimed.)

2. Sausage, sausage meat is a comminuted meat from neat cattle or swine, or a mixture of such meats, either fresh, salted, pickled or smoked, with added salt and spices and with or without the addition of edible animal fats, blood and sugar, or subsequent smoking. It contains no larger amount of water than the meats from which it is prepared and if it bears a name descriptive of kind, composition or origin, it corresponds to such descriptive name. All animal tissues used as containers, such as casings, stomachs, etc., are clean and sound and impart to the contents no other substance than salt.

3. Blood sausage is sausage to which has been added clean fresh blood from neat cattle or swine in good health at the time of slaughter.

4. Canned meat is the cooked, fresh meat of fowl, neat cattle or swine, preserved in hermetically sealed packages.

5. Corned or cured meat is meat, cured or pickled with dry salt or in brine, with or without the addition of sugar or syrup and (pending further inquiry) salt-peter.

6. Potted meat is comminuted and cooked meat from those parts of the animal ordinarily used for food in the fresh state, with or without salt and spices and enclosed in suitable containers hermetically sealed.

7. Meat loaf is a mixture of comminuted cooked meat, with or without spices, cereals, milk and eggs, and pressed into a loaf. If it bears a descriptive name, it corresponds thereto.

8. Mince, mince meat, is a mixture of not less than ten (10) per cent of cooked, comminuted meat, and chopped suet, apple and other fruit, with salt, spices, and sugar syrup or molasses, and vinegar, fresh, concentrated, or fermented fruit juices and spirituous liquors.

F. BEVERAGES.

1. Malt liquor is a beverage made by the alcoholic fermentation of an infusion, in potable water, of barley malt and hops, with or without unmalted cereals.

2. Beer is a malt liquor produced by bottom fermentation, and contains, in one hundred (100) cubic centimeters, at 20 degrees C., not less than five (5) grams of extractive matter and sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphate, and not less than two and twenty-five hundredths (2.25) grams of alcohol.

3. Lager beer, stored beer, is beer which has been stored in casks for a period of at least three months, and contains, in one hundred (100) cubic centimeters at 20 degrees C., not less than five (5) grams of extractive matters and sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphate, and not less than two and fifty one-hundredths (2.50) grams of alcohol.

4. Malt beer is beer made of an infusion, in potable water, of barley malt and hops, and contains, in one hundred (100) cubic centimeters, at 20 degrees C., not less than five (5) grams of extractive matter, nor less than two-tenths (0.2) gram of ash, chiefly potassium phosphate, nor less than two and twenty-five hundredths (2.25) grams of alcohol, nor less than four-tenths (0.4) gram of crude protein (nitrogen 6.25).

5. Ale is a malt liquor produced by top fermentation, and contains in one hundred (100) cubic centimeters, at 20 degrees C., not less than two and seventy-five hundredths (2.75) grams of alcohol nor less than five (5) grams of extract.

6. Porter and stout are varieties of ale colored by the addition of highly roasted malt to the infusion.

YEAST AND YEAST PREPARATIONS.

1. Yeast, distiller's yeast, baker's yeast, is a moist, solid or thick liquid mass of pure, sound, top-fermentation yeast, *sacharomyces cerevisiae*.

2. Compressed yeast is washed, pressed yeast containing only sufficient water to make a coherent mass.

3. Dry yeast is yeast mixed with sufficient cereal meal or starch to make a mass dry enough to protect it from decomposition at ordinary temperatures.

CANNERS ADOPT STANDARD

President J. C. Warvel, of the Ohio Canners' Association, is sending out a list covering the standards for peas, corn and tomatoes adopted by the committee appointed at a meeting of the association held in Columbus some time since for the purpose of formulating standards for Ohio vegetables. Definitions of the standards follow:

STANDARDS FOR PEAS.

Fancy—Cans to be well filled; peas covered with clear liquor; size uniform; good flavor and absolutely tender.

Extra Standards—Cans to be well filled; peas covered with clear liquor; reasonably tender; size uniform and good appearance.

Standard—Cans to be fairly well filled; peas may be slightly hard; fair liquor may be more or less cloudy, but not thick; size fairly uniform and to comply with national food law.

Grading as to Size—Petit pois or size No. 1, sieve, 18-64; extra sifted or size No. 2, sieve, 20-65; sifted or size No. 3, sieve, 22-64; June or size No. 4, sieve, 24-64; marrow or size No. 5, 26-64.

STANDARDS FOR CORN.

Fancy—Cans to be well filled; must weigh not less than 23 ounces gross; stock absolutely young and tender and of natural color; packed medium moist and

practically free from foreign substance, such as silk, cob or husk.

Standards—Cans to be well filled; much weight not less than 23 ounces gross; stock reasonably tender and free from hard particles; natural color and to comply with national food laws.

STANDARDS FOR TOMATOES.

Fancy—Are to be packed from whole red ripe tomatoes and to weigh not less than 38 ounces gross and to contain 20 ounces of fruit, exclusive of juice.

Standards—Are to weigh not less than 36 ounces gross and must contain 18 ounces net weight of ripe tomatoes, not necessarily all red, exclusive of juice and to comply with national pure food laws.

CERTIFIED MILK AND ITS PRODUCTION.

While the production of certified milk is limited to a few large herds in the region of our big cities, it is a subject which all dairymen cannot help but be more or less interested in. In order to produce milk that measures up to the name "certified," the conditions under which the same is produced must approach as nearly as possible the ideal, which means that every detail of the work must be attended with the utmost cleanliness and diseased animals absolutely excluded. It is by example that we largely learn to improve our methods, and if everyone who reads this article discovers only one or two ideas that can help out in his individual operations, then well and good.

A word on the definition of certified milk. Literally, it means a pure product, but, practically speaking, it will be impossible to produce such. The term was introduced after being registered by an individual in the United States patent office. The principal requirements for milk that can be classed as certified are that it must be obtained from healthy cows kept in sanitary quarters, fed wholesome feed and given pure water, the milk to be drawn by clean, healthy attendants, in clean receptacles and in a clean atmosphere, the same to be cooled quickly, put in sterile vessels and iced for keeping.

Since bacteria are the chief cause of impurity, their number must be limited to as low a figure as is consistent in milk that would pass as certified. From ten to thirty thousand bacteria per cubic centimeter, which would be about the same as one-sixteenth of a cubic inch, are common standards. Most certified milk is also required to grade 4 per cent butter-fat. Practically all milk that is sold on this basis is produced under a legal contract between the dairyman and the medical milk commission which inspects the product and the herd and its surroundings regularly. The expense of this inspection naturally falls on the dairyman and is levied in various ways, and on an average amounts to about half a cent a quart. The advantage to the man selling such milk is that he is able to guarantee his product, which naturally draws a better class of trade. Certified milk sells from eight to twenty cents a quart.

A fair example of the requirements set forth by these milk commissions is given in the following paragraphs:

The barnyard should be clean in every sense of the word, well drained and free from flies, which condition is quite possible when the surroundings are as above stated. Flies irritate cows and thus reduce the yield.

The stable room should have no storage loft above it, though where this is not feasible the floor of the loft should be tight to prevent dust sifting through. Floors should never be of dirt, and preferably of ce-

ment. The entire inside should be whitewashed at least twice a year unless the walls are painted or of smooth cement finish which can be frequently washed. Bad air is allowable under no circumstances, and to this end manure should be removed twice daily and all gutters kept in sweet sanitary condition. All sweeping must be finished before milking in time enough to allow the dust to settle.

The water used for all dairy purposes must be absolutely free from pollution, and abundant.

No cows are allowed in the herd except those which have successfully passed the tuberculin test, which is made at least once a year by a competent veterinarian. All excitement about the stables is forbidden.

Strongly flavored food will not be tolerated. When silage is fed it must be given after the morning milking, and a full ration shall consist of not more than twenty pounds for the average sized cow. All changes from winter to summer feed should be gradual so as not to throw off feed any of the cows.

Grooming of the entire body of the cow must be performed daily. Before each milking the udders should be washed and dried. The same attention should be given the tail, and long hair on the flank and about the udder should be clipped close if possible.

Milkers must be personally clean and free from disease. Before milking the hands should be washed carefully, and on no account should milking be done with wet hands. Suits of some washable material, including caps, must be worn and kept clean. Iron milking stools are recommended, which should also be kept free from dirt. Milking must be done regularly and as quickly and quietly as possible. Cats and dogs must be excluded, as well as children under twelve.

All milk from cows sixty days before and ten days after calving must be rejected. The first few streams from each teat should be discarded in order to free the milk ducts from the milk that may have become infected from bacteria at the end of the milk duct. Bloody and stringy milk must always be rejected. Where accidents occur and dirt is gotten into the milk, it must be set aside and not used for bottling, neither the same pail again. As soon as milk is drawn it must be removed to a clean room and strained through a sterilized strainer of cheesecloth and absorbent cotton. Rapid cooling is very important and should commence immediately, continuing until the milk is cooled to 45 degrees F. within an hour and not allowed to rise above that as long as it is in the hands of the producer or dealer. The aeration of milk beyond that obtained in milking is unnecessary.

All utensils should be simple in construction so they may be easily cleaned. Soldered and rough joints are always objectionable, as well as corners, which indicate that round vessels are preferred. All utensils must be thoroughly cleansed and sterilized before being used to contain milk. A clean room should be provided for washing and keeping the utensils and for handling the milk.

Though considerably more costly, certified milk is rapidly increasing in popularity among those who wish to be on the safe side when it comes to the selection of food. It is used largely in hospitals and especially for infants. In fact, it appears that there is no lack of demand for the product and that the scarcity of dairymen who are willing to meet the requirements for production imposed by the commission is the chief obstacle to an increased production.—Farmer and Stockman.

DR. WILEY'S OFFICIAL ORGAN.

We hereby acknowledge a scoop by "Barrels & Bottles." In fact when it comes to getting news of a personal nature from Dr. Wiley, Barrels & Bottles has got every other magazine beat 486 miles. Just why Dr. Wiley should pick out this kind of a publication to defend his views and air his eccentricities is difficult to understand. However, the pleasantries and repartee indulged in between Dr. Wiley, who is interested in upholding one definition for whisky and Attorney W. M. Hough, counsel for the National Wholesale Liquor Dealers' Association, who is advocating another definition, is interesting, and we herewith reproduce same, giving due credit to Barrels and Bottles.

How W. N. Hough Failed to get by the Bureau of Chemistry.

From "Barrels and Bottles," May 1, 1908.

The above photograph illustrates an incident which once more demonstrates that straws show which way the wind blows and that even inanimate things have a kind of sympathy with the course of human events.



Incidentally, also, it depicts a happening that brought out Doctor Wiley's enjoyment of a joke and alertness in shooting folly as it flies. And lastly, the sequel to the incident itself shows how naturally, inevitably we might say, any reference to things alcoholic tends to throw minds otherwise sane and normal into a state where nothing but poesy affords the necessary relief. But mellifluous and sparkling as are the metrical *chefs-d'oeuvre* which resulted in this case, we feel it our solemn duty to warn their gifted authors that King Alcohol has but one official poet laureate. We feel sure that a perusal of William Mida's ode to the "Hull Thing" will convince them that however fascinating they may find the avocation of producing bacchanalian lyrics, the Midanic supremacy in this field makes it advisable that they stick to chemistry and law for human nature's daily food.

The incident caught by the camera as reproduced above occurred just after the President had issued his famous ruling regarding the labeling of whiskies, concerning which he had consulted Doctor Wiley, and one which pleased the chief of the Bureau of Chem-

istry much more than it pleased the general counsel of the National Wholesale Liquor Dealers' Association.

Mr. Hough was driving his forty-horsepower Panhard in fine style past the Bureau of Chemistry when, just as he came into the position shown, something gave way, and he could not go any further. At this critical moment Doctor Wiley, coming up, was accosted by him as follows:

Mr. Hough: You will notice that I broke down in front of your office.

Doctor Wiley: Yes, you see you can get by everything in this country except the Bureau of Chemistry.

While Mr. Hough was struggling to start his machine, Doctor Wiley, with malice aforethought, sent a photographer across the street and took a snap-shot and sent it to Mr. Hough, with the following verse:

"Remember what you said, and my reply!

You see you could not possibly get by.

Just notice this one point in your career.

And that is, namely, that you stopped right here!"

To which Mr. Hough replied in the following lines:

"I admit you have caused interference at times
Like the 'blow-out' you pictured so well,
But you fail to portray
That I soon sped away
And left you no story to tell
Of successes which crown every effort of yours
To establish definitions unfair;
And you'll learn when swords meet
Delay spells not defeat
For the man who left you standing there."

INTERESTING MILK TEST.

The superintendent at the Moore's Milk Company pasteurizing plant at Wellsville, Ohio, has been experimenting as to the length of time milk properly pasteurized and kept in a cool place would remain sweet and found that milk properly pasteurized will keep sweet for more than six weeks. To be exact, a quantity of milk was pasteurized just six weeks and three days, and when it was tested was churned into butter, which is of a beautiful golden color and very palatable. This test is regarded as important, as it means much to the housewife, who is daily troubled these days with sour milk.—Modern Grocer.

SCIENTIFIC

SIGNIFICANCE OF GASES FOUND IN SWOLLEN CANNED GOODS.

By R. O. Brooks, Consulting Food Chemist and Bacteriologist, 191 Franklin Street, New York City. (Formerly State Chemist, New Jersey and Pennsylvania.)

Alas for the fond hopes of the would-be scientists of the effete East! For nearly a week the Chicago scientific exploration department, both official and collegiate, had been unheard from. A full seven days had passed with no announcement of an epoch-making scientific discovery in the windy metropolis. Possibly the discovery by politicians at the Republican convention, that Roosevelt would keep his promise, in spite of an unprecedented demonstration and demand for a second elective term, was considered sufficient. Naturally, however, the scientific men of the world outside of Chicago were hoping that the unwonted quietness presaged a cessation of, or at least a diminution of the birth rate of premature or immature scientific discoveries.

The medium through which all these optimistic hopes were dispelled is the American Food Journal, a two-year-old, which Swift & Co. seem to have captured, judging from the number in question, i. e., Vol. III, Part 6 (June 15, 1908). Possibly this may also account for the fact that no canned meats were included in the article on the "Analysis of Gases Contained in Swollen Canned Goods," contributed by two junior scientists in the Chicago Health Department.

As an analytical tabulation of the proportions of carbon dioxide, oxygen, hydrogen and nitrogen found in certain gases from cans of fermented tomatoes, corn, peas, beans and a few fruits, the data presented is interesting, even though incomplete and valueless for purposes of interpretation. The authors, however, working "under the guidance of the director of the Chicago Health Department Laboratory," have decided otherwise, and among other things say that the proportion of nitrogen found (which, by the way, includes all errors in the analytical methods used) is an "index of the amount of proteid decomposition which has taken place!" This, indeed, is an interesting discovery, especially in view of the generally accepted fact, demonstrated by eminent bacteriologists of Europe and vouched for by the great Lafar, that no free nitrogen is disengaged during the putrefaction of proteids, occasionally by mycological agencies.

A determination of hydrogen sulphide and organic sulphides or even ammonia gas, none of which were attempted, however, might be claimed to be a rough index of putrefactive decomposition, but as concerns the large proportions of nitrogen found in the gases examined by Messrs. Tonney and Gooker the worst that can probably be said is that it represents air unexpelled from the can and from which all or a part of the accompanying oxygen has been abstracted by aerobic bacteria or various chemical oxidations.

No definite quantities of nitrogen found were given and the authors admit the possibility of the cans containing air, entering during the canning process and

indeed probably responsible for the subsequent spoiling of the contents.

The presence of free hydrogen in the gases examined, it is reasonable to ascribe to an objectionable fermentation and the Chicago analysts frankly admit that a "marked putrefactive odor was always noticed in samples containing hydrogen."

A majority of the condemned cans showed no hydrogen, however, and gave evidence of merely an alcoholic fermentation producing more or less carbon dioxide (CO_2). The authors do not deny but that such cases, especially if attended to immediately, can be reprocessed with safety.

They are inclined to think, however, that swollen cans are reprocessed indiscriminately and even if the cans are entirely emptied before reprocessing that a dangerously fermented can may contaminate the contents of the more legitimate cans. We have an idea that intelligent canners utilize their sense of smell, and common sense as well, and throw away products which have become dangerous by putrefaction.

Considerable is said in the article in question regarding ptomaines, those comparatively simple chemical cleavage products, once considered dangerous in sufficient quantity, but now relegated to the list of terrible newspaper poisons such as benzoate of soda, coal tar colors, sulphites and turmeric. The fact that these products of proteid decomposition, particularly the very few which are poisonous in large enough quantities, are formed only in an advanced stage of putrefaction is overlooked.

The real dangerous poisons, the proteid-like toxins, which are elaborated by dangerous bacteria and unless rendered inert by heat can cause severe and fatal illness, even though the canned food shows no sign of being spoilt, are not mentioned by our Chicago discoverers. Factory cleanliness should eliminate such instances, however, and excepting this possibility, the putrefactive odor will prevent the reprocessing or eating of truly spoilt canned goods.

Reverting back to the "discovery" of free nitrogen gas as an "index" of proteid decomposition, it is proper that we should admit that certain soil bacteria, for instance several varieties of *Bacillus denitrificans* can reduce nitrates and nitrites to free nitrogen. This might account for nitrogen in certain products, but not as a result of proteid decomposition, particularly in the early stages before the bad odor has developed. There is the best of authority for this claim and if it is true, the deductions of our Chicago discoverers as to the source and significance of their nitrogen findings will bear revision.—American Grocer.

WHAT NUTMEG IS.

The genuine round nutmeg sold in the best shops is the kernel of the tree known as *myristica moschata*, or nutmeg tree.

It is a native of the Moluccas, and is grown extensively in Hainan, also in the islands of Banda, East Indies, and in Africa. Nutmeg culture is also becoming a source of much profit in several of the West Indian islands, especially in Granada.

In size and foliage the trees resemble pear trees. They do not come into bearing till nine or ten years old. The fertile trees continue to produce fruit seventy or eighty years, and on an average each tree will yield ten pounds of nutmegs, with about one pound of mace, every year; but when highly matured it is said

they will produce ten times that amount. It takes nine months for the fruit to come to maturity.

The process of curing the nutmegs for the market is as follows: The ripe fruit containing the nutmeg is nearly a spherical droop, not unlike a round pear or common walnut, and of golden yellow color without and white within. These are gathered up from under the trees every day, except Sunday. The outer or fleshy part of the fruit is rather tough, something like candied lemon, and is in fact often preserved and used as a sweetmeat; but it readily splits in two like a pea, and inside this outer fruit is found a thin but very hard shiny brown shell, tightly wrapped in a bright red network or ligament known as mace. It is inside this shell that the ordinary nutmeg of commerce is found. The mace is peeled off and pressed flat between heavy blocks of wood, where it is left for two or three days, then put into a case and left till it acquires the proper color. The nutmegs with the shells on, are next put into receptacles with fine mesh bottoms, so that the air can pass around them, and here they are left for three weeks or a month—in fact, until the kernel, or nutmeg, begins to shake inside the shell. They are then exposed to the sun for two or three days, and after this they are carefully cracked. Great caution is necessary here, for if the outside shell is struck too hard it makes a black spot on the nutmeg, which affects the value considerably. When cracked the thin shell flies off in pieces, and the nuts are sorted according to size.

Nutmegs being very liable to the attacks of maggots and a species of beetle, which materially injure their odor and taste, all the nuts at are once dipped three or four times, by basketfuls, into a strong limelike pickle, thick as treacle, composed of calcined shells and salt water. Preserved in this coating and then dried in heaps, they are ready for packing in cases or ordinary flour barrels for shipment.

This lining undoubtedly injures their flavor somewhat, and brown unlined nutmegs are best; but they are very liable to damage from the insects referred to, and even after they have been treated as described. The best way of keeping them for any length of time is in dry lime.—*The Commercial*, Winnipeg.

CLEAN MILK.

The milk problem is justly recognized as one of the most important with which sanitarians have to cope. Impure milk is the one great factor in infant mortality, and this being so, the question of clean milk deserves all the attention it has been given in recent years. It is a monstrous condition that the lives of little children should be thus jeopardized at all when the dangers from milk can be so definitely removed by the exercise of due cleanliness in milking, bottling and transportation. Pasteurization, while it doubtless has saved countless lives, it is at most a makeshift procedure. In lieu of clean methods in the dairy, it is serviceable. But pasteurized milk can never be a satisfactory substitute for *clean* milk. It may be safe as regards bacterial content but it has lost much in palatability—if not food value. It is therefore only as an extemporaneous expedient for minimizing the dangers of milk known to be impure that pasteurization has any place in the scheme of modern sanitation.

Clean milk with a bacterial content so low that it is absolutely harmless is now possible from the development of dairy sanitation. Now that clean milk is known to be feasible *there is no excuse for unclean*

milk. The cry that exaction of the details essential to the production of clean milk will work a hardship on the dairy man or lead to a prohibitive price for such milk is ridiculous. The hardship of the dairy man is one that he must get adjusted to as an evolutionary detail of his business and in line with his duty as a citizen. As for increased cost of clean milk, this is an economic question and will soon adjust itself. As soon as the people get educated to the advantages of clean milk, they will have no other, and competition will regulate the price. The paramount need is to awaken the great mass of the people to the dangers of impure and needlessly contaminated milk. Then they will clamor for clean milk, and the public usually get what they clamor for. Education is the solution of the problem.

A Chance for Philanthropy.—The milk problem offers a splendid chance for some man philanthropically inclined to establish a model dairy farm in close proximity to New York City, that will be not only one of the most useful charities of the day, but an object lesson that will bear wonderful fruit in saving countless babies' lives throughout the land. True philanthropy is that which offers far more than direct benefits, and the man who in supplying the needy poor with pure, clean milk teaches its advantages to the multitude will save more lives than is possible in any other way.—*American Medicine*.

DAIRY INTERESTS WIN COMPLETE VICTORY OVER OLEOMARGARINE MANUFACTURERS.

Much attention has recently been directed to the fight between the dairy people and the manufacturers of oleomargarine regarding the government mark of inspection. The Secretary of Agriculture has announced that the order as promulgated some time ago will stand unchanged. It was declared last week, just before the hearing of both sides in controversy was begun, that the "Department of Agriculture is not seeking to favor the dairy interests nor to punish the oleo manufacturers." The oleo people declared that the mark of the government inspection was unnecessary, or at least, that it was unduly displayed, while the dairy interests maintained that the mark was a legitimate protection which should be afforded to them and to the public.

A hot fight was promised, but nothing of a sensational nature developed, the persons heard by Secretary Wilson and his advisers in the Department of Agriculture being confined largely to manufacturers of oleomargarine. The meat inspection law provides that all containers of meat food products shall bear the government mark of inspection, and the department held that the papers in which the pound prints of oleomargarine are wrapped are containers, within the meaning of the law, and should be marked in accordance with what was regarded officially as a plain legal provision.

The oleo manufacturers maintained that the wrappers on pound packages were not "containers" within the meaning of the statute. The dairy people pointed to this contention as proof positive, or at least a strong confirmatory evidence, that the oleo people wish to impose their product on the public as genuine butter. After hearing these facts and allegations, Secretary Wilson gave out this resume of the case:

"Upon each wrapper or covering of cloth, paper, or other material, of individual prints or bricks or rolls

of oleomargarine which are inspected and packed at official establishments, there shall be placed the recognized mark of inspection, which shall include the number of the official establishment in which the product is prepared.

"This is the substance of the order recently promulgated by the department. Objection was raised, and by request of the attorneys for the American Meat Packers' Association, a hearing was had. The oleomargarine and dairy interests were represented. The oleomargarine manufacturers maintained that the government mark of inspection on their product was unnecessary; that the cost of the additional mark would burden a heavily taxed product; and that under the meat inspection law, there was no power in the Secretary of Agriculture to require the mark, since the whole subject of marking was covered by the regulations of the commissioner of internal revenue issued under authority of the oleomargarine act. The representatives of the dairymen wished the government mark to be placed upon oleomargarine.

"After careful and deliberate consideration it has been determined by the Secretary of Agriculture that the regulations shall stand as made. The statute is clear and admits of but one construction. It reads in part as follows:

"That when any meat or meat food product prepared for interstate or foreign commerce which has been inspected as hereinbefore provided and marked 'inspected and passed' shall be placed or packed in any can, pot, tin, canvas or other receptacle or covering in any establishment where inspection, under the provisions of this act is maintained, the person, firm or corporation preparing said product shall cause a label to be attached to said can, pot, tin, canvas or other receptacle or covering, under the supervision of an inspector, which label shall state that the contents thereof have been 'inspected and passed' under the provisions of the act."—*Modern Grocer*.

DISCUSS PURE CANDY.

Fearful that the publicity which pure food discussions have already forced upon candy making is inducing a skepticism in the public mind of the wholesomeness of candy, the twenty-fifth annual convention of the National Confectioners' Association discussed pure food legislation in executive session at Atlantic City last week.

H. W. Hoops, of New York, president of the association, who delivered the annual address, said that the national pure food law had been of great value in many ways, but that it would be much more helpful if the state laws could be made to harmonize with it.

"Its greatest benefit has come to the confectionery trade through these enactments," he said. "It is by them that we have regained the confidence of the public. It had become fearful of the purity of candy. We want fair and honest food laws, but we want them enforced by officials who are reasonable, and not extremists or cranks."

Mr. Hoops assailed newspapers which publish stories of candy poisoning without sufficient authority saying that such accounts are fanatical exaggerations.

"What this association stands for is protection of our members against unjust attacks, and prevention of unjust and unfair food and labor laws. We should not attempt to go into the questions of formulas or prices," was Mr. Hoops' conclusion.—*Modern Grocer*.

CROP REPORT.

Washington, D. C., July 8, 1908.

The Crop Reporting Board of the Bureau of Statistics of the Department of Agriculture finds, from reports of correspondents and agents of the bureau, as follows:

The preliminary estimate of the acreage planted in corn is 100,996,000 acres, an increase of 1,065,000 acres, or 1.1 per cent, as compared with the final estimate of the acreage planted last year.

The average condition of the corn crop on July 1 was 82.8 per cent of a normal, as compared with 80.2 on July 1, 1907, 87.5 on July 1, 1906, 85.6 the ten-year average on July 1.

The average condition of barley on July 1 was 86.2 per cent of a normal, as compared with 89.7 last month, 84.4 on July 1, 1907, 92.5 on July 1, 1906, and 88.3, the ten-year average on July 1.

The average condition of rye on July 1 was 91.2 per cent of a normal, as compared with 91.3 last month, 89.7 on July 1, 1907, 91.3 on July 1, 1906, and 90.1, the ten-year average on July 1.

The acreage of Irish potatoes is estimated as 3,198,000 acres; that is, 2.4 per cent, or 74,000 acres more than last year. The condition of the crop on July 1 was 89.6 per cent of a normal, as compared with 90.2 on July 1, 1907, 91.5 on July 1, 1906, and 91.6, the ten-year average on July 1.

The acreage of tobacco is estimated as 763,000 acres; that is 7.0 per cent, or 58,000 acres, less than last year. The condition of the crop on July 1 was 86.6 per cent of a normal, as compared with 81.3 on July 1, 1907, 86.7 on July 1, 1906, and 86.0, the ten-year average on July 1.

The acreage of flax is estimated as 2,657,000 acres; that is, 7.2 per cent, or 207,000 acres, less than last year. The condition of the crop on July 1 was 92.5 per cent of a normal, as compared with 91.2 on July 1, 1907, 93.2 on July 1, 1906, and 90.0, the average on July 1 for five years.

The average condition of the hay crop on July 1 was 92.6 per cent of a normal, as compared with 96.8 last month and approximately 82 on July 1, 1907. The condition of timothy on July 1, was 90.2 per cent as compared with 82.2 on July 1, 1907, and 86.0, the ten-year average on July 1; clover, 95.5 on July 1, as compared with 76.4 on July 1, 1907, and 84.0, the ten-year average on July 1.

The condition of the apple crop on July 1 was 57.6, as compared with 66.0 on June 1, 44.0 on July 1, 1907, and 62.3, the ten-year average on July 1.

C. C. CLARK,

Acting Chief of Bureau, Chairman.

NAT C. MURRAY,

GEORGE K. HOLMES,

HERMAN H. JOHNSON,

THOMAS J. ANDERSON,

Crop Reporting Board.

Approved:

WILLIS L. MOORE,

Acting Secretary.

You can secure the back numbers of The American Food Journal at the regular subscription price of \$1.00 per year.

F. I. D. 93-95.

Issued May 23, 1908.

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

FOOD INSPECTION DECISIONS 93-95.

93. Amendment to Regulation 34. 94. The Labeling of Medicinal and Table Waters. 95. The Use of Neutral Spirits Distilled from Beet Sugar Molasses in the Preparation of Whisky Compounds and Imitation Whiskies.

(F. I. D. 93.)

Amendment to Regulation 34.

Certain classes of articles are offered for entry into this country which, under certain conditions, are ordinarily used for food purposes. The articles in question are used also for technical purposes. An example of such a product is the nutmeg. The mature and sound nutmeg is used for food purposes, while the defective nutmeg is used for the preparation of nutmeg oil, which has a technical use as an odoriferous principle. The defective nutmeg is not fit for food, but, on the other hand, is as well or even better suited for preparing oil.

Under Regulation 34 as it now stands, shipments of products which are ordinarily used for food, but which in the particular case are intended for use in the arts, must be so denatured as to render them unfit for food purposes, and the invoice accompanying the shipment must declare the technical use. It has proved impracticable to have all such products denatured before they are offered for entry into the United States.

The Board of Food and Drug Inspection recommends a change in Regulation 34 of Circular 21 of the Office of the Secretary, the amended Regulation to become effective on the date of issue, and to read as follows:

Regulation 34, Denaturing. (Section II.)

Unless otherwise declared on the invoice, all substances ordinarily used as food products will be treated as such. Shipments of substances ordinarily used as food products intended for technical purposes should be accompanied by a declaration stating that fact. Such products should be denatured before entry, but denaturing may be allowed under customs supervision, with the consent of the Secretary of the Treasury, or the Secretary of the Treasury may release such products without denaturing, under such conditions as may preclude the possibility of their use as food products.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

GEORGE B. CORTELYOU, Secretary of the Treasury.

JAMES WILSON, Secretary of Agriculture.

OSCAR STRAUS, Secretary Commerce and Labor.
Washington, D. C., May 12, 1908.

(F. I. D. 94.)

The Labeling of Medicinal and Table Waters.

The Department has received many letters from various water manufacturers and mineral water dealers asking which waters it will be necessary to label as "artificial" or "imitation." It is thought that all manufactured waters should be labeled as either artificial or

imitation, the choice of words being left to the manufacturer, and applying to waters contrived by human art and not made in imitation of a natural water, as well as to those so contrived and made in imitation of a natural water. A water which is designated by some name alone, without any characterizing adjective to tell whether it is natural, imitation, or artificial, will be considered a natural water. It is suggested that the words "artificial" or "imitation" be in as large type as the name of the water in question, and on a uniform background.

All waters which, though natural in the beginning, have anything added to them or abstracted from them after they come from source, should either be labeled as "artificial" or should be so labeled as to indicate that certain constituents have been added to or extracted from them. It is suggested that the word "artificial" or the above explanation, as the case may be, should appear in as large type as the name of the water in question on a uniform background.

The following examples are explanatory of the above principles. If lithia be added to a natural water, the water should be labeled as "artificial lithia water," as "water artificially lithiated," or as "water treated with lithia." Again, if carbon dioxid be added to a natural water, whether the carbon dioxid be of the manufactured variety or collected from the spring itself, the water should either be labeled as "artificially carbonated water," "water artificially carbonated," "water treated with carbon dioxid," or "contains added carbon dioxid."

No water should be labeled as a natural water unless it be in the same condition as at source, without additions or abstractions of any substance or substances.

No water should be labeled as "medicinal water" unless it contains one or more constituents in sufficient amounts to have a therapeutic effect from these constituents when a reasonable quantity of the water is consumed. No water should be named after a single constituent unless it contains such constituent in sufficient amounts to have a therapeutic effect when a reasonable amount of the water is consumed.

No manufactured water should bear upon the label any design or device that would lead the consumer to believe that the water is a natural one. Among such designs may be mentioned pictures of springs, fountains, woodland streams, etc.

No water should be characterized by a geographical name which gives a false or misleading idea in regard to the composition of said water. For example, it would not be correct to designate a water as "Lithia water" merely because the water came from Lithia, Fla., or Lithia, Mass.

Manufactured water may be named after a natural water in case the words "imitation" or "artificial" are used, but such manufactured waters must clearly resemble in chemical composition the natural waters after which they are named.

In accordance with Regulation 19 (c) and (d), no natural American spring water should be named after a foreign spring, unless the name of the foreign spring has become generic and indicative of the character of the water, except to indicate a type or style, and then only when so qualified that it could be offered for sale under the name of the foreign spring. In these cases, the State or Territory where the spring is situated should be stated on the principal label.

Inasmuch as mineral waters are largely purchased

because of their supposed freedom from contamination, any showing such contamination will be considered as adulterated and therefore in violation of the Food and Drugs Act.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., May 13, 1908.

(F. I. D. 95.)

The Use of Neutral Spirits Distilled from Beet Sugar Molasses in the Preparation of Whisky Compounds and Imitation Whiskies.

The labeling of whisky compounds and imitation whiskies, in the preparation of which neutral spirit distilled from beet sugar molasses has been used, will be governed by the opinion of the Attorney-General, dated May 11, 1908.

JAMES WILSON,
Secretary of Agriculture.

Washington, D. C., May 13, 1908.

May 11, 1908.

The Honorable The Secretary of Agriculture.

Sir: I have the honor to acknowledge the receipt of your letter of the 28th ultimo, inclosing copy of a hearing had before you on the subject of spirits distilled from beet sugar molasses, in which you request an expression of my opinion on the question whether it is "allowable under the Food and Drugs Act to use in the place of neutral or silent spirits, prepared from grain, a neutral or silent spirit prepared from fermented beet sugar molasses in the preparation of whisky compounds and imitation whiskies."

In reply, I beg to advise you that there is no provision of the Food and Drugs Act which would prevent the use either in whisky compounds or imitation whiskies of neutral spirits distilled from beet sugar molasses, provided such compound or imitation whisky is properly labeled. Neither do I think that the President's direction to you of April 10, 1907 (F. I. D. '65, p. 2), which was referred to at the hearing, that whisky should be labeled in accordance with my opinion of that date, is to be properly construed as limiting the use of the term "compound whisky" to cases where the whisky is compounded with a grain distillate.

While it is true that in this direction it is said that "a mixture of straight whisky and ethyl alcohol * * * will be labeled as compound of, or compounded with, pure grain distillate," it is plain that this was only intended to apply to the case of such compounds as are set forth in the opinion whose enforcement was directed, and that it was not intended either to limit the use of the term "compound whisky" to the case where the whisky was compounded with a grain distillate, or to require the use of this particular label where another distillate had in fact been used in the compound.

By reference to my opinion of April 10, 1907, whose enforcement was thus directed, it will be seen that while it was stated that "a mixture of whisky with neutral spirit must be deemed a 'compound' and not a 'blend,' although the spirit may be a distillate from the same substance used to furnish the whisky" (F. I. D.

65, p. 13; 26 Opin., 228), and while the particular specimen label of a compound whisky which was suggested related to compound in which it was "assumed that both the whisky and the alcohol are distilled from grain" (F. I. D. 65, p. 16; 26 Opin., 231), it plainly appears from the entire opinion that the particular kind of compounded whisky which was considered was used for illustrative purposes merely and that it was not intended to limit in any way the use of the term "compound of whisky" to those compounds in which the distillate mixed with the whisky is in itself produced from grain, or to require the use of the specimen label suggested in a case where the mixture is with a distillate produced from other substances than grain.

I am therefore clearly of the opinion that there is nothing whatever either in the Food and Drugs Act itself, or in my former opinion, or in the President's direction for its enforcement, which would limit whisky compounds to cases where the neutral spirits with which the whiskies are mixed are derived from grain distillates, and that the compound to which you refer, if otherwise a genuine compound of whisky, may be properly placed upon the market under the Food and Drugs Act provided it is properly labeled so as to show the true character of the other distillate with which the whisky is compounded.

Respectfully,

CHARLES J. BONAPARTE,
Attorney-General.

F. I. D. 93.

Issued May 25, 1908.

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

FOOD INSPECTION DECISION 96.

Serial Number Guaranty.

As a result of the numerous requests for specific information on various points connected with the filing of general guaranties with the Department, as well as on the use of serial numbers after they have been assigned, the following general instructions bearing on these questions are issued for guidance of those interested:

(A) For information regarding the serial number guaranty, see Rules and Regulations for the Enforcement of the Food and Drugs Act (Circular 21), Regulation 9, and Food Inspection Decisions 40, 70, 72 and 83.

(B) Articles to be guaranteed may be referred to in the guaranty in the following ways:

(1) By name.

(2) By use of general terms. For example, proprietary medicines, extracts, carbonated waters, etc., using the proper terms to cover the line or lines sold.

(3) By stating in the space reserved for listing articles "all articles which are now or which may hereafter be manufactured, packed, distributed or sold by," in which case the serial number can be used on all foods or drugs, subject to the act, manufactured or owned and sold by the guarantor.

(C) The formulae of preparations are not required to be given.

(D) The serial number guaranty should not be

used on articles not entitled to bear such a guaranty: For example,

(1) Those of a character which are not included in the definition of articles within the purview of act as given in section 6 found on page 17 of Circular 21.

(2) Those subject to the meat inspection law, i. e., meat and meat food products of domestic origin or manufacture derived from cattle, swine, sheep and goats. (Imported meat and meat food products are subject to the food and drugs act and may be guaranteed by means of a serial number or guaranty.)

(3) Those used in the arts and for technical purposes.

(E) Serial number assigned to a guaranty can be used on any article covered therein to which the act applies. (See B.)

(F) Products not covered by the guaranty on file at the Department can be added thereto by executing another guaranty covering them to be filed as a supplement to the original instrument. (See B.)

(G) The serial number guaranty can be printed either directly on the principal label or appear on a supplemental label or poster attached to the goods.

(H) Only a resident of the United States can make a valid guaranty. (See Food Inspection Decision 62.)

(I) The general guaranty filed with the Department must be executed by the person, company, association, or corporation who assumes responsibility for the goods, or by his or its agent thereunto lawfully authorized, and the authority of such agent must plainly be made to appear when the guaranty is offered to be filed.

(J) Full information relative to the signing of the guaranty instrument appears at the bottom of the blank form of guaranty.

(K) The signature should be acknowledged before a notary public or other official authorized to administer an oath. The seal of such official should always be affixed to the document.

H. W. WILEY,
FREDERICK L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,

Secretary of Agriculture.

Washington, D. C., May 20, 1908.

Notice of Judgment No. 2.

Issued June 24, 1908.

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

NOTICE OF JUDGMENT NO. 2, FOOD AND DRUGS ACT.

MISBRANDING OF MOLASSES.

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the Rules and Regulations for the Enforcement of the Act, notice is given that on the 23d day of April, 1908, in the District Court of the United States for the Western Division of the Western District of Tennessee, in a proceeding of libel for condemnation of eighteen barrels of molasses, labeled and branded "Re-boiled Open Kettle Molasses," wherein

the United States was libellant, and Penick & Ford, a corporation, was claimant, the said claimant having admitted the allegations of the libel, a decree of forfeiture and confiscation was rendered, in substance and in form as follows:

In the District Court of the United States for the Western Division of the Western District of Tennessee.
United States of America vs. Twenty-six Barrels of Molasses.

In this cause it appearing to the court, the United States, by George Randolph, United States attorney, and Penick & Ford, the claimants and owners of the property seized herein, by their attorney, John D. Martin, consenting thereto, that under the process issued in this cause eighteen barrels of molasses branded "Reboiled Open Kettle Molasses, Penick & Ford, New Orleans, La.," were seized by the United States marshal in the John H. Poston Warehouse in the city of Memphis, Shelby county, Tennessee, and that the same were subject to seizure and confiscation by the United States for the causes set forth in the libel herein, that is to say, for the reason that said eighteen barrels contained a large per cent of glucose which had been substituted in part for the said molasses and the said brands on the said barrels were misleading and calculated to deceive purchasers.

And it further appearing by like consent that the said Penick & Ford have agreed that an order may be entered at once condemning and confiscating the property to the United States.

It is, therefore, ordered, adjudged, and decreed that the said eighteen barrels of molasses above described now in the possession of the marshal of the court be and the same are hereby declared to be forfeited and confiscated to the United States.

It is further ordered, however, that upon payment by the said Penick & Ford of the costs of this proceeding and the execution and delivery of a good and sufficient bond to be filed with the clerk in this cause, conditioned that said eighteen barrels of molasses shall not be sold or otherwise disposed of contrary to the provisions of the act, Chapter 3915, of the Fifty-ninth Congress, commonly known as the Pure Food and Drugs Act, or contrary to the laws of the state of Tennessee, then the marshal of this court is hereby directed to deliver said eighteen barrels of molasses to the said Penick & Ford, or their representatives.

But in the event the said Penick & Ford shall fail to pay the costs of this proceeding, or fail to give bond as above provided within fifteen days from date of the entry of this order, then the marshal of this court is hereby directed, after first properly branding said eighteen barrels of molasses, to advertise the same for sale in some newspaper published in the city of Memphis, for a period of fifteen days and sell the same on the premises of the John H. Poston warehouse for cash to the highest bidder.

GEORGE RANDOLPH.

U. S. Attorney.

JOHN D. MARTIN,

Attorney for Penick & Ford.

Enter this.

McCALL, Judge.

The following is a statement of the facts upon which the case is based:

On April 7, 1908, an inspector of the Department of Agriculture located on the premises of the John H. Poston warehouse, Memphis, Tenn., a consignment of goods and purchased a sample thereof, which was

labeled as follows: "Penick & Ford Re-Boiled Open Kettle Molasses, New Orleans, La."

The sample purchased was one of a consignment of about 26 barrels of molasses shipped from New Orleans to Penick & Ford, Memphis, Tenn., and held by the said John H. Poston Warehouse subject to the order of Penick & Ford. An analysis of the sample was duly made by the Bureau of Chemistry, Department of Agriculture, and the following results obtained and stated:

Polarization, direct at 28° C....°V..	+102.3
Polarization, invert at 28° C....do..	+ 75.0
Polarization, invert at 87° C....do..	+ 81.2
Sucrose (by 142.66).....per cent..	21.22
Glucose (av. polarization 175° V).do..	49.82
Ash	3.055

The analysis showed that the product was adulterated within the meaning of section 7 of the act, in that glucose had been substituted in part for the molasses, thereby reducing its quality and strength; and that it was misbranded under section 8, in that the label declared the article to be molasses, when it was in fact a mixture of molasses and glucose.

On April 19, 1908, the facts were reported by the Secretary of Agriculture to the district attorney at Memphis, Tenn. Libel for seizure and condemnation of 18 of the barrels of molasses was duly filed in the district court of the United States for the western division of the western district of Tennessee, under section 10 of the act, upon which seizure was forthwith made, but before publication of the monition, the claimant, Penick & Ford, appeared, waived the formality, and agreed that the consignment of molasses seized was subject to seizure and confiscation by the United States for the causes stated in the libel. Whereupon the court adjudged the molasses misbranded, and upon the filing of a good and sufficient bond in accordance with section 10 of the act, and under the provisions of the decree hereinbefore set forth, the goods were duly surrendered to the claimant.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

W. M. HAYS,

Acting Secretary of Agriculture.

WASHINGTON, D. C., May 28, 1908.

Notice of Judgment No. 3.

Issued July 1, 1908.

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

NOTICE OF JUDGMENT NO. 3, FOOD AND DRUGS ACT.

MISBRANDING OF FLOUR.

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the Rules and Regulations for the Enforcement of the Act, notice is given that on the 23d day of January, 1908, in the United States District Court for the Western District of New York, the United States of America being plaintiff and the Birkett Mills, a corporation located and doing business at Penn Yan, N. Y., defendant, in a criminal proceeding on informa-

tion filed by the United States attorney, a copy of which is hereinbelow given, charging a violation of Section 2 of the Food and Drugs Act of June 30, 1906, in shipping and delivering for shipment into interstate commerce a misbranded flour, the said defendant having been duly arraigned, entered a plea of guilty and the court, in its discretion, suspended sentence.

United States District Court, Western District of
New York.

The United States of America, Plaintiff,
against

The Birkett Mills, Defendant.
Information.

Be it remembered, That Lyman M. Bass, attorney of the United States of America, for the Western District of New York, who for the said United States in this behalf prosecutes, in his own person, comes here into the District Court of the said United States of America for the district aforesaid on this 23d day of January, 1908, and for the said United States of America gives the court here to understand and be informed that one The Birkett Mills, a corporation organized and existing under and by virtue of the laws of the state of New York, with its place of business at Penn Yan, in the Western District of New York, heretofore, to-wit, on the 20th day of May, A. D. 1907, at said Penn Yan, in the Western District of New York, and within the jurisdiction of this court did then and there wrongfully and unlawfully ship and deliver for shipment from the state of New York to the city of Omaha, in the state of Nebraska, two barrels of a certain wheat product, which said wheat product did not then and there contain as a constituent element thereof 5.6 per cent of nitrogen, but did in fact contain no more than 1.37 per cent of nitrogen, and did then and there contain approximately 12.80 per cent of moisture, and which said wheat product was not then and there pure gluten flour, and which said two barrels of said wheat product was then and there misbranded by having printed thereon the words "Pure Gluten Flour," contrary to the form of the statute in such case made and provided, to-wit, An Act of Congress of the United States of America, entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors and for regulating traffic therein and for other purposes," approved June 30, 1906, and against the peace and dignity of the said United States of America.

Whereupon the said attorney of the said United States, who prosecutes as aforesaid for the said United States of America, prays for the consideration of the court in the premises and that due process of law be awarded against the said The Birkett Mills, a corporation organized and existing under and by virtue of the laws of the state of New York in this behalf, to make it answer to the said United States of America concerning the premises aforesaid.

LYMAN M. BASS,

United States Attorney in and for the West-
ern District of New York.

The following is a statement of the facts upon which the case is based:

On July 15, 1907, an inspector of the Department of Agriculture purchased from Courtney & Company, Omaha, Neb., samples of an article labeled "Pure Gluten Flour, The Birkett Mills, sole manufacturers,

Penn Yan, N. Y." The flour was duly analyzed by the Bureau of Chemistry, Department of Agriculture, and the results obtained indicated that it was not a gluten flour as defined in the "Standards of Purity for Food Products," promulgated under authority of the Secretary of Agriculture, in that it contained 12.80 per cent of moisture and 1.53 per cent of nitrogen, the former 2.80 above and the latter 4.07 per cent below the standard, which is as follows:

"Gluten flour is the clean, sound product made from flour by the removal of starch and contains not less than five and six-tenths (5.6) per cent of nitrogen and not more than ten (10) per cent of moisture."

By this removal of starch the product is particularly adapted to the use of those persons whose digestive organs cannot dispose of the starch in ordinary flour. The starch had not been extracted from the flour in this case, hence the person who supposed he was purchasing a pure gluten flour was deceived and misled. The statement on the sacks was, therefore, false, misleading and deceptive, and the flour was offered for sale and sold by the defendant under the distinctive name of another article in violation of Section 8 of the act.

Whereupon, the defendant having been afforded an opportunity to present evidence showing any fault or error in the finding of the analyst or examiner, the case, on December 28, 1907, was transmitted by the Secretary of Agriculture to the Department of Justice and by that department referred to the United States attorney for the Western District of New York for prosecution with the result hereinbefore stated.

H. W. WILEY,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,

Secretary of Agriculture.

Washington, D. C. June 17, 1908.

UNITED STATES TREASURY DECISIONS GENERAL APPRAISERS

(T. D. 28887—G. A. 6743.)

Rotten Macaroni.

1. Seizure by Board of Health.

The date in a certificate given by the board of health of the city of New York purporting to show a seizure and condemnation of macaroni as not fresh, sound, wholesome, and safe for human food, under chapter 19, title 1, sections 42 and 58, Laws of New York, 1900, is prima facie evidence of the date of seizure as shown on the face of the certificate, but may be proved to be erroneous by satisfactory evidence showing the true date of such seizure.

2. Collector's Report as Evidence.

Where an investigation made under the direction of the collector shows that such merchandise was seized and condemned twelve days after importation, and subsequent to the time the articles passed from the custody of customs officers into the possession of the importer, held that, without further proof, the collector's report is sufficient to overcome the prima facie case shown by the health department's certificate.

3. Decay Subsequent to Importation and Delivery.

To constitute a shortage or nonimportation of mer-

chandise claimed to be decayed and unfit for food, such decayed condition must be proved to exist at the time of importation, or at least before the goods are delivered to the importer. Subsequent decay is not material.

United States General Appraisers, New York, March 19, 1908.

In the matter of protest 280310 of Paolo Bonforte against the assessment of duty by the collector of customs at the port of New York.

Before Board 3 (Waite, Somerville, and Hay, General Appraisers).

Somerville, General Appraiser: The invoice in this case covers 1,150 boxes of macaroni, which was assessed for duty at the rate of 1½ cents per pound under paragraph 229 of the tariff act of 1897, on the quantity or weight returned by the United States weigher. The importer in his protest claims that 53 boxes of the merchandise were destroyed by the board of health, and on this ground he asks for a refund of the amount of duty claimed to be overexact.

We construe the protest as an effort to bring the importation within the determination of *Lawder v. Stone* (187 U. S., 281), and the decision of the circuit court for the southern district of New York in *United States v. Courtin* (153 Fed. Rep., 594; T. D. 27970), where it was held that fruit arriving in this country in a rotten condition, being entirely worthless at the time of importation, and especially when condemned by the board of health, was held to be nondutiable. The Courtin case affirmed the decision of the Board in the case of *Ceballos & Co., et al*, G. A. 6356 (T. D. 27324). The question to be decided is as to the condition of the fruit at the time of its arrival in this country during its custody by customs officers and before delivery to the importer.

A certificate of the department of health of the city of New York, issued on July 6, 1907, reads as follows:

February 15, 1907. Seized and condemned by Inspector Philip Holz, Italian Steamship Company, steamship Cerea, pier 64, North River, Manhattan. 52 boxes of macaroni, 22 pounds each, 1,144 pounds. Account of Parlo Bonforte. Marked P. B. and F.

If this certificate stood alone it would justify the conclusion that the seizure was made on February 15, 1907, as stated in the certificate. The collector, however, doubting the correctness of this date, had a thorough investigation made in order to establish the fact whether or not the board of health certificate is antedated or erroneously dated for the purpose of getting a rebate of duty on the goods after they have passed from customs custody. The report of the two inspectors, Harris and Scanlan, who made the investigation, shows very conclusively that the particular lot of macaroni covered by the protest was unladen from the vessel on February 18, 1907, and was delivered to the importer prior to the seizure by the board of health, which did not occur until February 28, when the inspectors had left the pier.

The inference therefore would be that the certificate is improperly dated and that the macaroni was not seized until about twelve days after importation, during which time its condition as to soundness may have undergone a complete change. In other words, the record is not sufficient without additional testimony to show that the merchandise was in an unsound condition so as to be worthless at the time of importation, but subsequently became so after it

passed from the custody of customs officers. The protest on this account must be overruled and the collector's decision affirmed.

(T. D. 1360).

Temperance beer.

Manufacture of soft drinks and beverages containing less than one-half of 1 per cent of alcohol on brewery premises.

TREASURY DEPARTMENT,
OFFICE OF COMMISSIONER OF INTERNAL REVENUE,
Washington, D. C., May 19, 1908.

Sir: Referring to your conference with this office relative to the manufacture of so-called "temperance beer" on the premises of a regular brewery, I have the honor to advise you that, as stated in T. D. 1345, this office has not approved the manufacture of soft drinks and untaxable beverages on the premises of a brewery producing taxable fermented liquors, for the reason that such practice would necessarily be subjected to close supervision, and would probably result in much annoyance both to the manufacturer and to revenue officers.

There is, however, no provision of law or regulations which specifically prohibits such practice, and if brewers undertake to manufacture such a beverage it is desirable that the position of this office be clearly understood.

T. D. 1307, holding that a beverage containing less than one-half of 1 per cent of alcohol is not taxable as a fermented liquor, is based upon the belief, reached after careful examination of numerous samples submitted to this office, that such a beverage, made from a wort in which such a small quantity of malt or other material is used that the product when fully fermented does not contain one-half of 1 per cent of alcohol, or made from a wort containing ordinary amounts of malt or other material and only slightly fermented, does not resemble any of the fermented liquors enumerated in the statute imposing a tax on such liquors sufficiently closely to be classified as such.

The manufacture of any fermented mash, wort, or wash and the separation by any process of the alcoholic content therefrom except upon the premises of a registered distillery is prohibited by section 3282, Revised Statutes; but a proviso to the section expressly exempts fermented liquors from its provisions.

It is therefore held that the manufacture of an ordinary beer, and the reduction of the alcoholic content to less than one-half of 1 per cent by boiling in the open air, or by any other process, is prohibited, unless the product is brought within the exemption of the proviso by being tax paid as a fermented liquor, regardless of its alcoholic content, but such product, containing less than one-half of 1 per cent of alcohol may be sold by retailers without the payment of special tax.

Brewers who manufacture a beverage by this process should treat it in all respects as a fermented liquor taking up on their records the material from which it is made.

Brewers who also manufacture a beverage which does not at any process of manufacture contain more than one-half of 1 per cent of alcohol should credit themselves, by separate red-ink entries, on their material book, with the quantity of materials used for this specific purpose; and should use the utmost care to keep the processes as well as the materials used in the production of the two classes of beverages sep-

arate, and to keep the taxable and untaxable articles separate and distinct one from the other. The temperance beverage when removed from the brewery premises must be contained in packages unlike those ordinarily used for containing fermented liquor.

Respectfully,

JOHN G. CAPERS, *Commissioner.*

Mr. _____

INTERNAL REVENUE DECISIONS.

(T. D. 1375.)

Modification of internal-revenue Circular 723, relating to marking packages of distilled spirits.

(Circular No. 40—Int. Rev. No. 726.)

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., June 10, 1908.

To collectors of internal revenue and others:

Department Circular 33, Internal Revenue 723, dated May 5, 1908, is hereby amended as follows:

At the close of paragraph numbered 5 on page 2 insert the following paragraph:

"In giving notice of completion of rectification on Form 237, the rectifier, on and after July 1, 1908, will be required to state in the body of the notice and over his signature the name of the spirits according to the classification in Circular 723."

The third paragraph from the close is hereby amended so as to read as follows:

"The name of the spirits on the heads of all packages filled at the cistern rooms of distilleries, and on all packages of not less than 20 wine gallons capacity filled at fruit distilleries or by rectifiers or wholesale liquor dealers, must be legibly marked or branded in letters not less than 1 inch in length; and on all packages of less than 20 wine gallons capacity filled at fruit distilleries or by rectifiers or wholesale liquor dealers, in letters not less than three-eighths of an inch in length."

Collectors will place a copy of this circular in the hands of all gauging officers, and also supply a copy to each distiller, rectifier, and wholesale liquor dealer in their respective districts.

ROBT. WILLIAMS, JR.,

Acting Commissioner.

Approved:

GEORGE B. CORTELYOU,

Secretary of the Treasury.

LAST OF "POISON SQUAD."

The members of Dr. Wiley's "poison squad" ate their last "doped" meal for a while at luncheon last week. For a week they will be allowed to rest and eat without doing violence to their physical being. This week will be the observation period wherein Dr. Wiley and his assistants will note what effect borax, alum, formaldehyde and extraneous and poisonous combinations generally have on the system when taken in food in varying quantities. The internal economy of the "poison squad" has been at the disposal of the Department of Agriculture for nearly a year and the experiments have been notated by Dr. Wiley, chief of the Bureau of Chemistry.

When their symptoms for the next week have been recorded the squad will go back to a normal diet, as the experiment now concluding, is the final one. Their cases will be reported in a book that the Agricultural Department will cause to be issued and circulated freely.—Modern Grocer.

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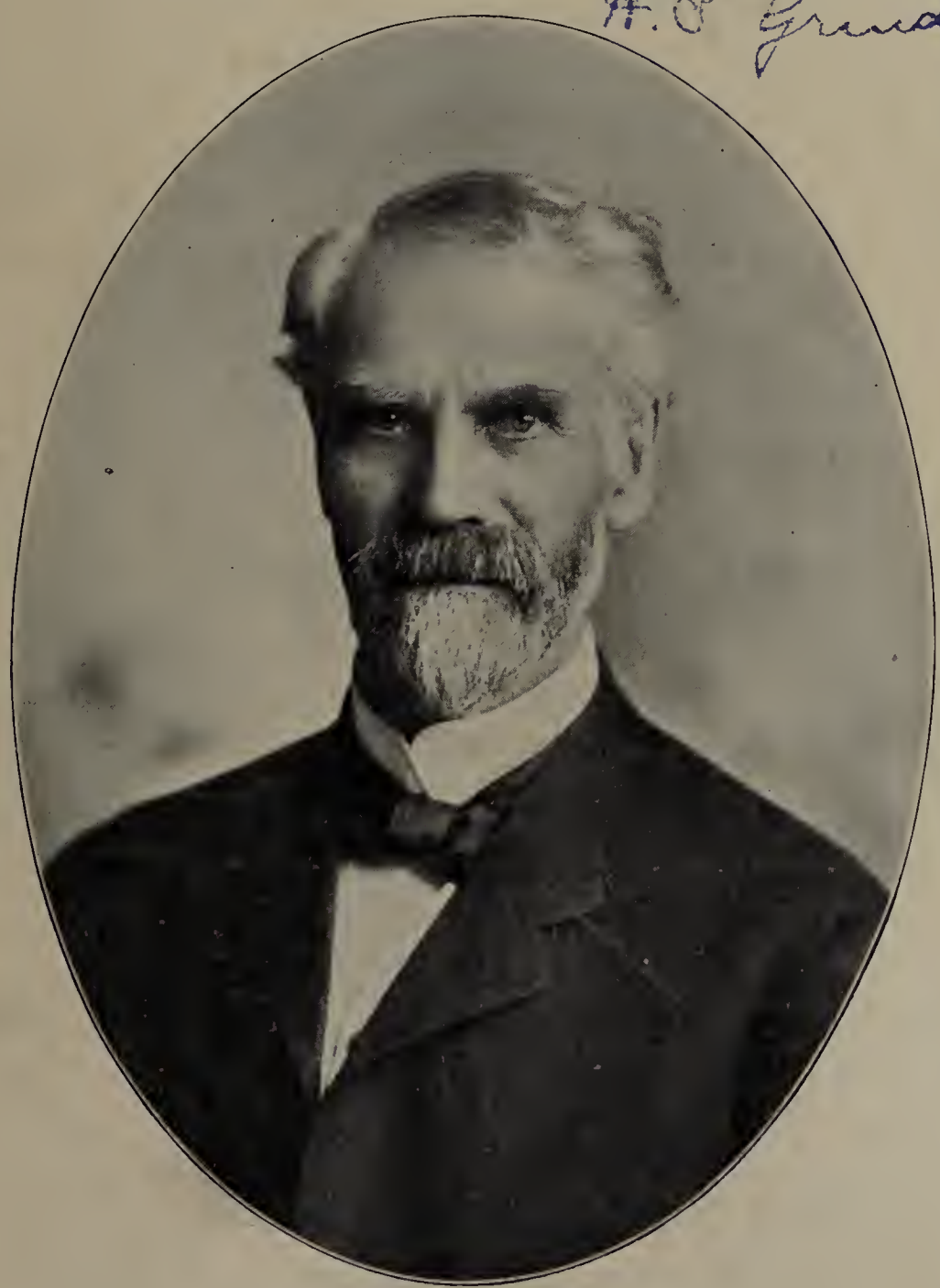


Vol. III No. 8

CHICAGO, AUGUST 15, 1908

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THE AMERICAN FOOD JOURNAL



Vol. 3. No. 8.

CHICAGO, AUGUST 15, 1908.

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Report of the Proceedings of the Twelfth Annual Convention of the Association of State and National Food and Dairy Departments.

At Mackinac Island, Michigan, August 4-7, 1908.

By Our Special Correspondent.
TUESDAY A. M., AUGUST 4, 1908.

FIRST SESSION.

The convention was called to order by President Ladd at the Grand Hotel, Mackinac Island, at the appointed hour.



GRAND HOTEL, MACKINAC ISLAND.

The address of welcome was made by Hon. A. C. Bird, Dairy and Food Commissioner of Michigan. In the course of his remarks Commissioner Bird stated: "Michigan is honored by your presence. I extend to you the heartiest welcome from the Governor of the state, who is closely identified with the food work of the state, and whose actions did more than that of any other man to place the department on a basis where

it can accomplish the purposes for which it was organized. I extend a welcome on behalf of the people of the entire state who appreciate your coming here.



HON. A. C. BIRD, MICHIGAN.

I can in no more emphatic words express to you this welcome than to hope that after your sessions have been completed, and after you have gone back to your homes and memory takes you back to the scenes of these four or five days, that you may accord to us the same measure of gratitude that we extend to you at this time for coming here and tarrying for a few days in our midst."

The response to the address of welcome was to have been made by Assistant Commissioner H. H. Kracke



PROF. M. A. SCOVELL, KENTUCKY.

of New York, but as he was absent at the time the convention was called to order Prof. M. A. Scovell of Kentucky responded in his place.

The following is a list of those in attendance at the convention:

Members of the Association of State and National Food and Dairy Departments in Attendance.

COLORADO.

Hon. Wilbur F. Cannon, Chief Inspector Pure Food and Drug Division, Denver.

Hon. B. G. D. Bishopp, State Dairy Commissioner, Denver.

CONNECTICUT.

Dr. E. H. Jenkins, Director, Agricultural Experiment Station, New Haven.

Dr. J. Phillip Street, M. S., State Analyst, Hartford.

GEORGIA.

R. E. Stallings, Chemist, Department of Agriculture, Atlanta.

IDAHO.

Hon. J. R. Fields, State Dairy Pure Food and Oil Commissioner, Boise.

ILLINOIS.

Hon. H. E. Schuknecht, Assistant Dairy Commissioner, Chicago.

Dr. T. J. Bryan, State Analyst.

Mr. A. L. Nehls, Assistant Chemist, Chicago.

INDIANA.

Prof. H. E. Barnard, Food and Drug Commissioner and Chemist, State Board of Health, Indianapolis.

IOWA.

H. R. Wright, State Food and Dairy Commissioner, Des Moines.

J. R. Chittick, Chemist State Food and Dairy Commission, Des Moines.

KANSAS.

Dr. S. J. Crumbine, Chief Food Inspector and Secretary State Board of Health, Topeka.

Prof. E. H. S. Bailey, Chemist State Board of Health, Lawrence.

KENTUCKY.

Prof. M. A. Scovell, Director, Kentucky Experiment Station, Lexington.

R. M. Allen, Secretary and Executive Officer Food Division, Lexington.

J. O. La Bach, Chemist Food Division, Lexington.

LOUISIANA.

Dr. C. H. Irion, President State Board of Health, New Orleans.

Dr. R. E. Blouin, Director Louisiana Sugar Experiment Station, New Orleans.

MAINE.

Dr. Chas. D. Woods, Director Maine Agr'l Experiment Station, Orono.

MICHIGAN.

A. C. Bird, State Dairy and Food Commissioner, Lansing.

Professor Floyd W. Robison, State Analyst, Lansing.

C. W. McGill, Attorney for Department, Lansing.

MINNESOTA.

E. K. Slater, State Dairy and Food Commissioner, St. Paul.

Dr. Julius Hortvet, State Analyst, St. Paul.

MISSOURI.

F. L. Austin, Secretary Dairy and Food Commission, Columbia, Mo.

NEW HAMPSHIRE.

Prof. Chas. D. Howard, Chemist State Board of Health, Concord.

NEW JERSEY.

R. B. Fitz Randolps, Director State Laboratory of Hygiene, Trenton.

NEW YORK.

Geo. L. Flanders, Assistant Commissioner Dept. of Agriculture, Albany.

H. H. Kracke, Assistant Commissioner Dept. of Agriculture, New York City.

NORTH CAROLINA.

Prof. W. M. Allen, Food Chemist State Board of Agriculture, Raleigh.

NORTH DAKOTA.

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J. H. Wurst, Director Experiment Station, Fargo.

OHIO.

R. W. Dunlap, State Dairy and Food Commissioner, Columbus.

Prof. Azor Thurston, Chemist, Grand Rapids.

E. J. Riggs, Chief Food Inspector, Columbus.

Chas. L. Thurber, Secretary to the Commission, Columbus.

OKLAHOMA.

Edwin De Barr, State Analyst, Gunther.

PENNSYLVANIA.

James Foust, Dairy and Food Commissioner, Harrisburg.

Prof. Wm. Frear, Chemist, State College.

SOUTH DAKOTA.

A. H. Wheaton, Food and Dairy Commissioner, Brookings.

Prof. J. H. Shepard, State Chemist, Brookings.

TENNESSEE.

Lucius P. Brown, Pure Food and Dairy Inspector, Nashville.

UNITED STATES DEPARTMENT OF AGRICULTURE,
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Dr. H. W. Wiley, Chief, Bureau of Chemistry.

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E. H. Webster, Chief of Dairy Division.

L. M. Tolman, Chief Division of Chemistry Bureau of Internal Revenue.

W. G. Campbell, Chief United States Food and Drug Inspector.

Dr. A. M. Farrington, Assistant Chemist United States Bureau of Animal Industry.

Dr. R. E. Doolittle, Chief New York Laboratory, New York City.

Dr. A. L. Winton, Chief Chicago Laboratory, Chicago.

Dr. B. H. Smith, Chief of the U. S. Food & Drug Laboratory, Boston.

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John Peterson, State Dairy and Food Commissioner, Salt Lake City.

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L. Davies, Dairy and Food Commissioner, Davenport.

L. W. Hanson, Deputy State Dairy and Food Commissioner, Seattle.

J. Q. Emery, State Dairy and Food Commissioner, Madison.

Dr. Richard Fisher, Chemist, Madison.

WYOMING.

E. W. Burke, State Dairy and Food Commissioner, Cheyenne.

Representatives Present From Allied Associations, Commissions and Leagues.

Prof. H. A. Weber, member of the Food Standards Committee of the Association of Official Agricultural Chemists, not recorded as member of a State or National Food Department.

Former Food Control Officials Present.

Hon. E. O. Grosvenor, former dairy and food commissioner of Michigan, Detroit, Michigan.

Manufacturers and Their Representatives Present.

Mr. D. D. Colcock, secretary Louisiana Sugar Exchange, New Orleans, La.

Mr. Sebastian Mueller, H. J. Heinz Co., Pittsburgh, Pa.

Mr. L. S. Dow, H. J. Heinz Company, Pittsburgh, Pa.

Dr. T. B. Wagner, Corn Products Company, Chicago.

Mr. E. E. M. Newton, representing Reid, Murdoch & Co., Chicago, Ill.

Mr. Jay D. Miller, representing Sprague, Warner & Company, Chicago.

Mr. Edmund W. Taylor, of E. H. Taylor, Jr., & Sons, Frankfort, Ky., representing Whisky Trust.

Mr. M. Blakemore, Goodwin Preserving Co., Louisville, Ky.

Dr. J. A. Wesener, Columbus Laboratories, Chicago, Ill.

Dr. Edward Gudeman, representing National Confectioners' Association.

Others Present.

Mrs. Loomis, official reporter, Detroit, Mich.

Mr. W. O. Bates, Barrels and Bottles, Indianapolis, Ind., Whisky Trust organ.

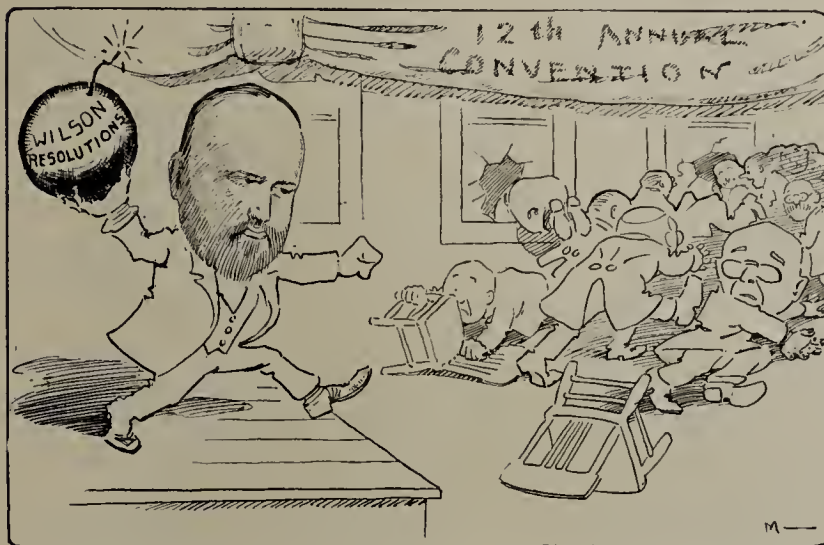
John Le May, Food Law Bulletin, Chicago.

Paul Pierce, What To Eat, Chicago.

Ellis Howland, New York Journal of Commerce, New York.

John Doe, AMERICAN FOOD JOURNAL, Chicago.

Next on the program was the annual address of the president, Hon. E. F. Ladd, Food Commissioner of North Dakota. (See page 21 of this issue.)



PRESIDENT LADD STAMPEDING THE CONVENTION.

On motion of Mr. Emery, the president's address was referred to the association for discussion in executive session.

The report of the secretary was read in executive session, also the report of the treasurer, now deceased, which was also read by the secretary.

Recessed to 2:00 p. m.

TUESDAY AFTERNOON, AUGUST 4, 1908.

READING OF PAPERS.

The first address on the program entitled, "The Present Legal Status of Oleomargarine in Wisconsin, as Determined by the Supreme Court," was delivered by Hon. J. Q. Emery, Dairy and Food Commissioner of Wisconsin, and is fully reproduced on page 27 of this issue.

The second address on the program was by the Hon. R. W. Dunlap, Dairy and Food Commissioner of Ohio, which was well received by the delegates. This paper in full is presented to our readers on page 29.

Address number three on the program, by E. W. Magruder, was not presented, as no paper was read or representative from that state was present.

Fourth on the program, "Federal and State Control of What We Eat and Drink," by Hon. A. H. Wheaton, Food and Dairy Commissioner of South Dakota, was a very able paper.

The fifth address entitled, "City Milk Inspection," was delivered by Prof. E. H. Webster, Chief of Dairy Division, U. S. Bureau of Animal Industry, Washington, D. C.

The other paper entitled, "City Milk Inspection," number six on the program, was not delivered or presented to the convention. This was assigned to Prof. W. L. Dubois of Buffalo, who did not attend the convention.

The seventh number on the program, "Theory

versus Practice in Milk Production," assigned to P. M. Harwood, general agent of Massachusetts Dairy Bureau, was not presented, Mr. Harwood not being in attendance.

The eighth number on the program, "Dairying in Washington," by L. W. Hanson, Deputy Dairy Instructor State of Washington, was delivered by him and will be reproduced in full in a subsequent issue of the AMERICAN FOOD JOURNAL.

The ninth address, "Publicity in Food and Dairy



Top Row from Right to Left—Commissioner R. W. Dunlap, L. S. Dow, Nelson Dunlap, James Foust, E. J. Riggs, E. H. Webster, A. M. Farrington.

Bottom Row from Left to Right—Miss Alice Dunlap, Mrs. R. W. Dunlap, Mrs. James Foust and Daughter, Mrs. A. H. Wheaton.

Law Enforcement Versus Prosecution," by Hon. L. Davies, Dairy and Food Commissioner of the State of Washington, was next delivered.

The tenth address of the afternoon was delivered by the Hon. E. W. Burke, Dairy, Food and Oil Commissioner of Wyoming, the title being "Drawn Versus Undrawn Poultry." This was a very able paper and will be reproduced in the September issue of this paper. The next number on the program, "Benzoate of Soda," was passed, owing to the absence of Prof. Henry G. Knight, State Chemist of Wyoming, who did not attend or send his paper.

The twelfth number on the program, "Opened Packages in their Relation to Inspection Laws," was presented by Dr. Charles D. Woods, Director Maine Agricultural Experiment Station.

The next address, number thirteen on the program, entitled The Need of State and Municipal Meat Inspection as a Supplement to Federal Inspection, was delivered by Dr. A. M. Farrington, Assistant Chemist U. S. Bureau of Animal Industry, Washington, D. C., and will be presented in full in the September issue.

The concluding address of this session, number fourteen, was a very fine paper entitled, "Correct Naming of Cheese," presented by Dr. G. E. Patrick, Chief Dairy Laboratory, U. S. Bureau of Chemistry, Washington, D. C. This article will be published in our September issue.

WEDNESDAY A. M., AUGUST 5, 1908.

EXECUTIVE SESSION.

Wednesday morning's executive session was partly devoted to a discussion of Commissioner Emery's oleo-

margarine paper. It was the intention of the association originally to have all discussions of papers made during executive session, but little progress was made along this line, as the discussion of the first paper took up a large portion of this session, and only a small number of the papers that were read at the convention were discussed at all. The discussion of Mr. Emery's paper showed a wide difference of opinion in reference to oleo, the coloring of butter and similar subjects. The discussion of papers at this session was a positive failure, many members not being in favor of such star chamber proceedings, which shut out the



DR. C. H. IRION ADVOCATING THE OPEN DOOR.

public from hearing an open discussion on such important matters which affect the public welfare. One food commissioner expressed himself to your correspondent to the effect that we should not forget that our salaries and expenses to these conventions were paid out of the public treasury and that the people were entitled to know what was done at these sessions.

A large part of this session was also devoted to wrangling on the question of the president's address, resolutions, and the general policy of the association, and which showed a wide difference of opinion on almost all questions. After much discussion no definite conclusions were reached, some of the delegates being afraid of the Wiley "Big Stick," while others were loath to sacrifice their duty to the people who sent them there. The convention then recessed to 2 p. m.

WEDNESDAY P. M., AUGUST 5, 1908.

(Reading of Papers continued.)

Number fifteen, "Enforcement of the New Illinois Food Law," was delivered by Dr. T. J. Bryan, State Analyst of Illinois, and will be presented in our September issue.

Number sixteen on the program, "Relation of the State to the National Law," assigned to the Hon. A. H. Jones, State Food Commissioner of Illinois, was

not delivered or presented to the convention, Commissioner Jones not being present.

Next address on the program entitled, "Inspection Under the National Food and Drugs Act," was de-



WILEY AND TOLMAN COMPARING NOTES.

livered by W. G. Campbell, Chief Food and Drug Inspector, U. S. Bureau of Chemistry, Washington, D. C.

Prof. J. H. Shepard, State Chemist of South Dakota, Dairy and Food Commission, delivered the next address which was entitled, "Nitrous Acid as an Antiseptic." The AMERICAN FOOD JOURNAL will print this able address in a subsequent issue of the paper.

Number nineteen on the program, "Glucose Vinegar," assigned to Prof. P. F. Trowbridge, State Analyst of Missouri, did not show up, possibly owing to the fact that the Missouri law was recently declared unconstitutional, therefore no expense account for convention attendance being available.

Number twenty on the program, "Uses of Color in Imitation Cider Vinegar," by Dr. S. J. Crumbine, Secretary of the State Board of Health of Kansas, was delivered and was followed with address number twenty-one, "Vinegar Standards," by Prof. E. H. S. Bailey, Food Chemist, Kansas University, and State Board of Health.

Address number twenty-two, "Inspection of Natural Products," assigned to Dr. R. E. Doolittle, was next delivered.

The next, the skidoo number, on the program was delivered by Prof. H. E. Barnard, Indiana's Food and Drug Commissioner, and was entitled "The Deterioration of Some Standard Pharmaceuticals."

Dr. H. H. Rusby, expert in plant products, from Washington, D. C., was down for number twenty-four, "Plant Products Under the Foods and Drugs Act." The doctor did not materialize nor did he send a paper.

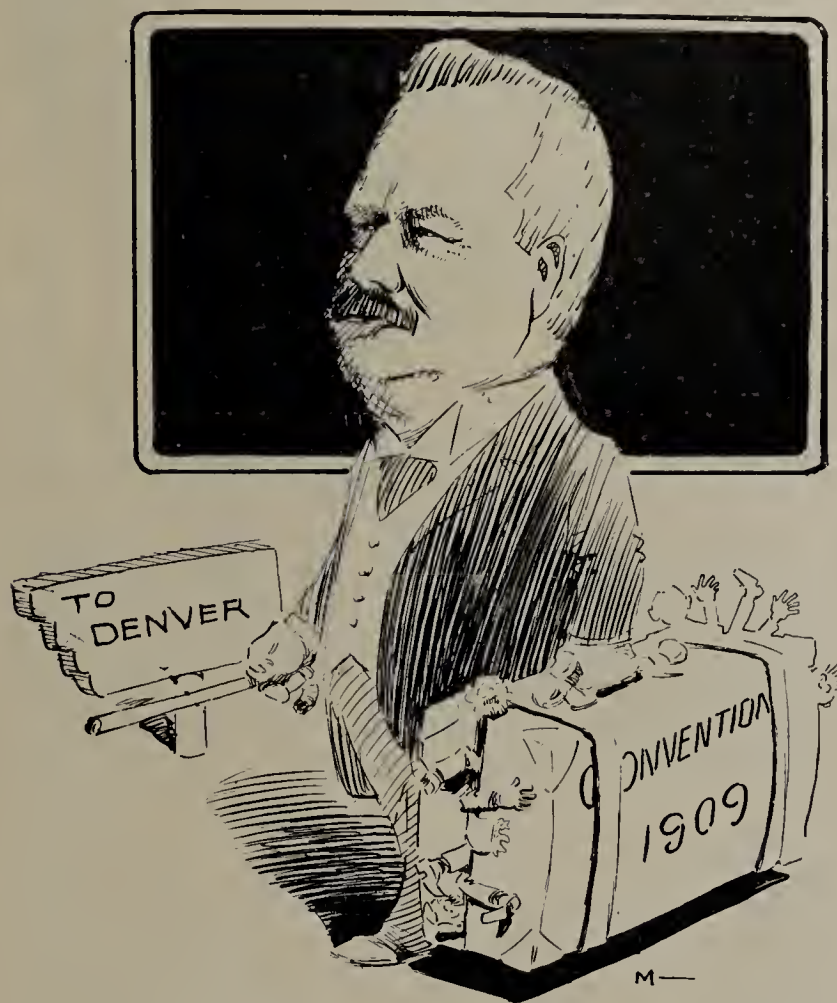
The final address at this session was assigned to Prof. Floyd W. Robison, State Analyst of Michigan, and was entitled "Water and Starch in Manufactured Meat Products." After this address the convention took a recess until Thursday morning.

THURSDAY A. M., AUGUST 6, 1908.

EXECUTIVE SESSION.

The convention proceeded to the selection of the

place of meeting for the nineteen hundred and nine convention. New York, Seattle, Denver and Cedar Point, Ohio, had been talked of but New York was not placed in nomination. Commissioners Bishopp and Cannon of Colorado invited the convention to go to Denver, Commissioner Cannon jumping into favor as the silver-tongued orator of the convention, making a most eloquent and convincing appeal for Denver, saying that if the members would go to that beautiful city and breathe the fresh mountain air and enjoy the delightful scenery and other attractions there, they would all say "Thank God we are alive," and that they would never have occasion to regret their action. Commissioner Cannon's speech apparently cinched Denver as the

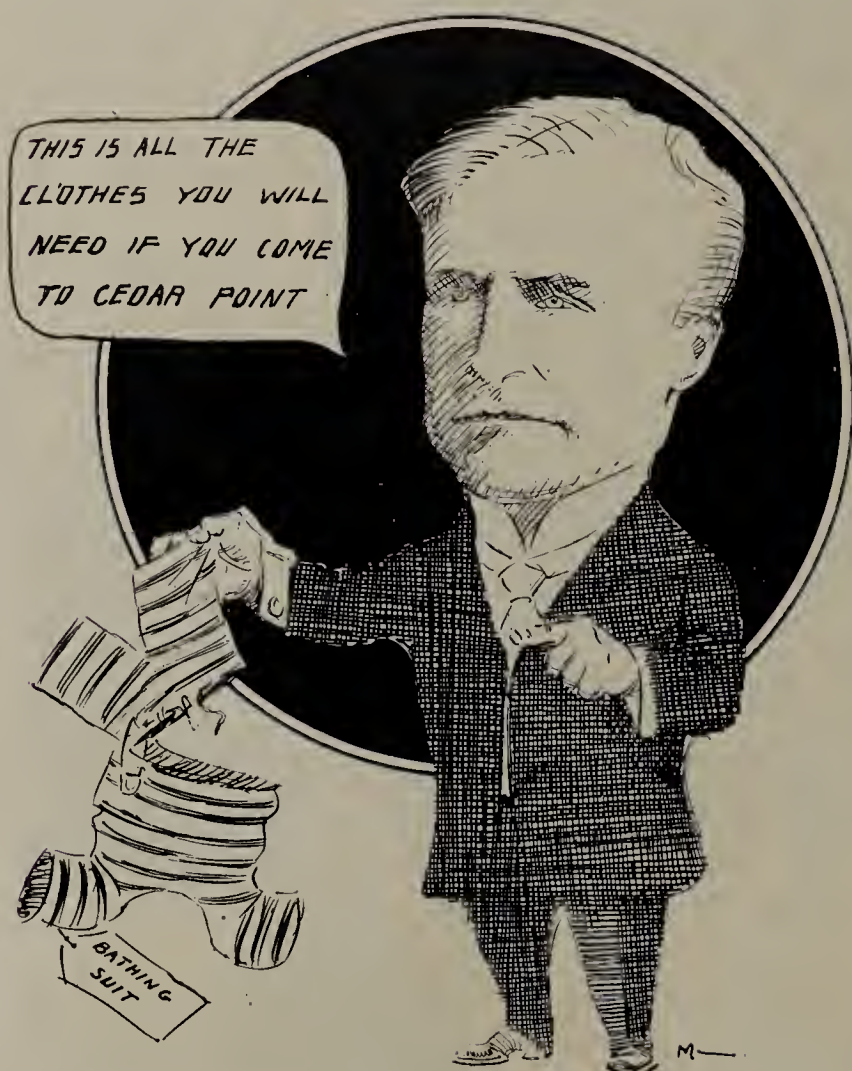


COMMISSIONER CANNON OF COLORADO "HOMEWARD BOUND."

winner. However, Commissioners Davies and Hanson of Washington spoke glowingly of the advantages of Seattle, where the big exposition is to be held next year, and Commissioner Dunlap of Ohio strongly urged the claims of Cedar Point, Ohio, on Lake Erie, "The Atlantic City of the West." Before the balloting ended, however, Denver was the winner, and on motion of the commissioners from Washington and Ohio, the choice of Denver was made unanimous. It was then agreed that the date for holding the next Convention be decided by the executive committee.

The election of officers was next on the program. President Ladd had appointed a nominating committee, consisting of Charles D. Woods of Maine, M. A. Scovell of Kentucky and James Foust of Pennsylvania, S. H. Wurst of North Dakota, E. H. S. Bailey of Kansas, to report at 11:30 this a. m. Commissioner Cannon of Colorado stated that he had been requested by several members of the association to speak for them and state to the

association that they were opposed to the selection of officers by a nominating committee, that they did not think it was right or just that three or four men should go into a room or a corner and select officers for the



COMMISSIONER DUNLAP OF OHIO INVITING THE CONVENTION TO HIS STATE.

association and to frame up a slate like a political ring, but that the convention itself should nominate the officers from the floor, and he therefore moved that nominations of officers be made on the floor of the convention and that the election take place before the report of the nominating committee was made. This produced a long and bitter discussion in which all sorts of varying opinions and insinuations were thrown back and forth over the convention hall so fast and furious that it looked as though it would break up in a riot. Commissioner Flanders of New York and Dr. Irion of Louisiana, Commissioners Burke of Wyoming and Wright of Iowa, and others, supported Commissioner Cannon's position. Commissioner Bird of Michigan opposed the motion, saying it would be a discourtesy to the nominating committee to ignore the report of that committee, that every newspaper man on the island knew that this committee had been appointed and that they should be given the courtesy of making their report, that it was not binding on the association to adopt the report of the committee, and that nominations could be made by any one from the floor of the convention after the nominating committee had made its report. A long wrangle ensued and after much more heated discussion it was finally agreed that nominations should be made direct from the floor of the convention, it being understood that the persons named by the chairman of the nominating committee were the choice of that committee which would practically be a report of the committee.

For president of the association, Commissioner

Burke of Wyoming was nominated by Commissioner Cannon of Colorado, and Commissioner Emery of Wisconsin by Dr. Charles D. Woods of Maine, which, by the way, was his first attendance at a convention of this association. The vote was for Commissioner Emery 66, and Commissioner Burke 18. Each state was allowed three votes, Commissioner Emery receiving the vote of 22 states and Commissioner Burke of 6, some states dividing their votes. After the vote was announced, Commissioner Burke stated that he knew he would not be elected, but only permitted his name to go before the convention for the principle involved to be able to present the name of any one for office on the floor of the convention and as a rebuke to the dark lantern methods that the association was getting into.

In response to calls for a speech, Commissioner Emery stated that he had never been a candidate for the position, and never asked any one to vote for him or even intimated that he desired the place. He assured the association of his appreciation of the honor and of the responsibilities of the office, and stated that he would devote his best efforts to the furtherance of the object of the association, pledging earnest work to secure strong uniform food laws and their rigid en-



DR. FISCHER, DR. WILEY AND COMMISSIONER BIRD POSING FOR PHOTO.

forcement. The following officers were then elected without opposition.

First Vice President—Asst. Commissioner H. F. Schucknecht of Illinois.

Second Vice President—Asst. Commissioner H. H. Kracke of New York.

Third Vice President—Prof. W. M. Allen, State Chemist, North Carolina.

Treasurer—Commissioner Jas. Foust, Pennsylvania.

Executive Committee—The President, the Secretary and Commissioners A. C. Bird of Michigan, E. F. Ladd of North Dakota and R. W. Dunlap of Ohio.

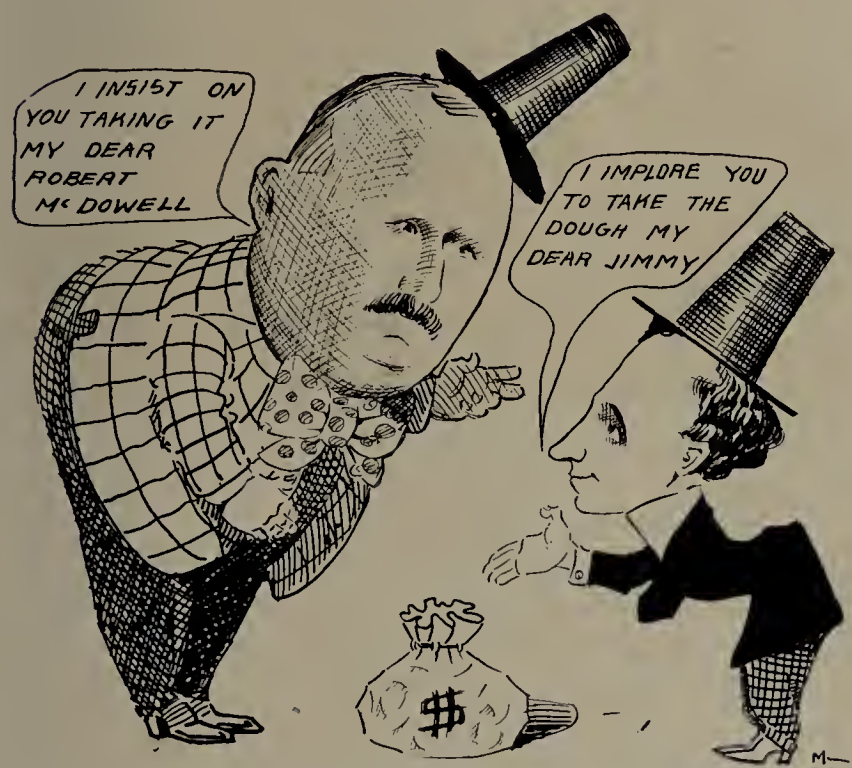
There was considerable opposition to the re-election of Secretary R. M. Allen of Kentucky, on account of negligence of duties and for his well known attitude to run the association in the interest of special kinds of whisky. Commissioner H. R. Wright of Iowa was placed in nomination from the floor of the convention by those de-

siring to rid themselves of the stain that the association was a bottled in bond whisky adjunct. Commissioner Wright, however, not being an active candidate nor having any desire for the office, was defeated by the powerful Washington whisky ring by



PROFS. FREAR AND HORTVET ENJOYING THE LAKE BREEZES.

the following vote: Allen 55, Wright 25. It was the consensus of opinion of the majority of delegates present that had Commissioner Wright been an active candidate he would have been elected. The association seems to be getting tired of "Me Too" Allen and the eastern interests, as one western commissioner put it. One other objection raised by the delegates against Allen was that he was on leave of absence to the Department of Justice at Washington and that the members could not see how he could serve two masters at one and the same time and that it was high time



FOUST AND ALLEN IN THEIR AMUSING ALPHONSE GASTON ACT.

that some one should be elected whose first consideration would be the State Dairy and Food Departments.

An interesting feature of this morning's session was an address by Vice President Fairbanks, who stated that the question of pure food and drugs was one of the most important now before the country. He stated that the national food law was largely the result of the work of the state food commissioners and other food authorities, and said that in his opinion Congress could not make a mistake in appropriating too much money

for the enforcement of such laws. He said he was in hearty sympathy with anything that would bring this about, that he had aided in the passage of the present law, and assured the convention of his earnest support in the future. The vice president was given a warm reception and his address punctuated with hearty applause.

THURSDAY AFTERNOON, AUGUST 6, 1908.

At the suggestion of Commissioner Bird of Michigan, Thursday afternoon's session was held on a boat, in pursuance of a promise made at Jamestown that the Convention could combine business and pleasure by having one session in a boat on the lake. The original programme was to have the papers scheduled for this session read while the members were enjoying the lake breezes and beautiful scenery on a trip around Mackinac Island on the Steamer Islander.



DR. BIGELOW AND PROF. LADD ON STEAMER ISLANDER.

Secretary R. M. Allen read a communication from the Federation of Women's Clubs, but in order to be heard at all, he had to raise his voice to megaphone proportions and yell like an Umpire, in a baseball game. He managed to get through with this and then read a letter from Miss Alice Lakey of the National Consumers League, which was very difficult for many to hear. This disposed of numbers 28 and 29 on the programme.

He was followed by Mr. L. M. Tolman, Chief Division of Chemistry Bureau of Internal Revenue at Washington, who made a decidedly unsuccessful attempt to discuss the "Methods of Analyses for Distilled Spirits" which was left over from yesterday's programme. This may have been a very scholarly paper, Mr. Tolman showing commendable perseverance in sticking to his work, but if a prize had been offered to the person present who could have repeated one sentence of his paper, the prize would probably never have been awarded, the waves of the lake and the noise of the boat's machinery were too much for the assemblage and it was on motion agreed to have a meeting at 8:00 P. M. for the completion of the day's programme.

THURSDAY EVENING, AUGUST 6, 1908.

No. 27 on Program—Drug Products. Left over from yesterday by Dr. Lyman F. Kebler of Washing-

ton, was not delivered on account of absence of Dr. Kebler.

Drug Inspection in Wisconsin No. 32 on the program was delivered by Dr. Richard Fisher, State Chemist of Wisconsin.

No. 33 on the program "The New Kentucky Foods and Drugs Act," by Prof. M. A. Scovell of Kentucky. The Professor quoted the most important features of the new law explaining its provisions in operation. The Professor stated that he considered the new Kentucky Law to be one of the best in the Country and one of the fairest to Consumer, Manufacturer, Retailer and all others concerned. This law, he said, is the result of 10 years' experience and work along food lines.

No. 34. "Injunctions," by Mr. R. M. Allen, Secretary. Mr. Allen discussed this subject in a brief and informal manner, stating to the delegates that the subject of "Injunctions" was too important to be properly treated in the time allotted to each paper—15 minutes.

No. 35 on the program "Oyster Investigations" was delivered by Dr. W. D. Bigelow, Chief Division of Foods, United States Bureau of Chemistry, Washington.

The next address was presented by Prof. Julius Hortvet, Chemist of the Minnesota Dairy and Food Commission, entitled, "Regulation of the Manufacture of Flavoring Extracts," and will be printed in a subsequent issue of "The American Food Journal."

No. 37 on the program. "Pure Food Work in New York State," by H. H. Kracke.

Mr. Kracke did not read a paper. He said that he did not want to be put on the program, and that he could not cover such a wide field in such a short time. He also said that he thought there were too many papers on the program, many of which were of no importance and that it would be better for the convention to have much fewer papers hereafter and all of them important, so that the convention would gain some benefit instead of listening as in many cases to a re-hash of old stuff that everybody knew before the paper was read. This opinion was expressed by a large number of those present at the convention, who could see no sense in placing forty-four papers on the program and have only one or two discussed. They did not have time to discuss them and a big percent of them present did not have time to listen to them. It appears that the Secretary was forcing a number of papers and a large program on the delegates. Mr. Kracke also stated that he hoped that in the preparation of the program for the next convention that better judgment be used.

No. Thirty-eight on the program. "Methods of Enforcing Pennsylvania Law by Commissioner Foust of Pennsylvania, and is printed in full in this issue of this journal.

The 39th number on the program was entitled "Glucose and Glucose Products" and was assigned to M. H. Lamb, Deputy Dairy & Food Commissioner of Missouri. Mr. Lamb, however, was not present and the convention was relieved of the pain of finding out "what he did not know on the subject."

No. 40 on the program. "Adulteration of Chocolate," was by Dr. B. H. Smith, of the U. S. Food and Drug Laboratory of Boston.

This ended the papers on the program for members of the Association with the exception of the papers read at the Manufacturers Session on the morning of Friday, the last day.

FRIDAY MORNING, AUGUST 7, 1908.

MANUFACTURERS' SESSION.

No. 41 on the program entitled "Plain Labeling," by Mr. M. Blakemore, of Louisville, Ky. His paper will be published at a later issue of the American Food Journal.

Address No. 42. entitled "The use of Bleached Flour," by Mr. W. C. Ellis of St. Louis, Mo., was read by Secretary R. M. Allen, Mr. Ellis not being present.

Next on the program No. 43 entitled "Preparing Food Products without a Preservative," by Mr. Sebastian Mueller of Pittsburgh, Pa.

No. 44, the final paper of the convention entitled "Catsups with Chemical Preservatives," by Mr. W. P. Hapgood of the Columbia Conserve Company, Indianapolis, and will be subsequently published in the AMERICAN FOOD JOURNAL.

This concludes the papers read at the convention.

There was to have been an executive session held Friday afternoon beginning at 2:00 P. M. but as many of the Delegates were anxious to get away, some of them suffering from sickness said to be due to ptomaine poisoning, the convention went into executive



SIMILA SIMILIBUS CURANTUR.

session immediately after the reading of Mr. Hapgood's paper.

EXECUTIVE SESSION.

The first thing considered at the executive session was the resolution of Commissioner J. Q. Emery, that the Association have an official journal, as suggested in President Ladd's Annual Address. This resolution was adopted but how to bring this about was not made clear to the delegates.

Mr. Emery also offered a resolution of thanks to the State of Michigan and to Commissioner A. C. Bird, for hospitality extended to the delegates to the convention, which was adopted.

Mr. George M. Flanders of New York offered a resolution on death of Commissioner J. B. Noble of Connecticut, which was adopted.

Mr. Flanders also offered a resolution on the death of Treasurer T. K. Bruner of North Carolina, which was also adopted.

On motion it was ordered that copies of these resolutions be engrossed and sent to the family of the deceased.

State Chemist Dr. Richard Fisher of Wisconsin read the report of the Committee on "Standards."

Commissioner Dunlap moved the adoption of the report of the "Standards Committee" as the official standards of this Association.

This motion was followed by a prolonged discussion on the "Whisky Standards." Some of the members desiring to separate the "Whisky Standards" from the other standards suggested by the Committee.

Prof. Scovell moved that the Convention vote on the Standards and accept the report of the Committee as the sense of this Association excluding the Standards on Whiskies. This motion was carried and all the standards except Whisky were then adopted. After another discussion and explanation of the Whisky Standards they also were finally adopted with great applause from the whisky ring contingent. Thus, the Standards Committee Report was adopted in its entirety, as the Standards of the Association.

THE AMERICAN FOOD JOURNAL herewith presents to its readers a copy of the standards as adopted by the association.

Standards and Recommendations Adopted by the Association of Food and Dairy Departments at Their Meeting at Mackinac Island, August 7, 1908.

The names, flavors, flavorings, essences, and tinctures as applied to foods were adopted as synonyms for flavoring extracts. A change in the standard of condensed milk (evaporated milk) and sweetened condensed milk was adopted by changing 27.5 per cent to 27.66 per cent as the ratio of fat to total solids. Pending further inquiry into the question of the manufacture of unsweetened condensed milk and pending results of investigation of this subject undertaken by the official National Association of Dairy Instructors, it was resolved to rescind the recommendations made at the last meeting regarding total solids in condensed milk, and to recommend to the association that pending further investigation, a 6 per cent variation from the standard of condensed and of sweetened condensed milk be allowed provided that the examination of the sample shows that it is made of whole milk, having a fat ratio not less than that indicated in the standard.

A. MEATS AND THE PRINCIPAL MEAT PRODUCTS.

B. MANUFACTURED MEATS.

1. Manufactured meats. (Standard earlier proclaimed.)

2. Sausage, sausage meat is a comminuted meat

from neat cattle or swine, or a mixture of such meats, either fresh, salted, pickled, or smoked, with added salt and spices and with or without the addition of edible animal fats, blood and sugar, or subsequent smoking. It contains no larger amount of water than the meats from which it is prepared contain when in their fresh condition and if it bears a name descriptive of kind, composition, or origin, it corresponds to such descriptive name. All animal tissues used as containers, such as casings, stomachs, etc., are clean and sound and impart to the contents no other substance than salt.

3. Blood sausage is sausage to which has been added clean fresh blood from neat cattle or swine in good health at the time of slaughter.

4. Canned meat is the cooked, fresh meat of fowl, neat cattle or swine, preserved in hermetically sealed packages.

5. Corned or cured meat is neat, cured or pickled with dry salt or in brine, with or without the addition of sugar or syrup and (pending further inquiry) salt-peter.

6. Potted meat is comminuted and cooked meat from those parts of the animal ordinarily used for food in the fresh state, with or without salt and spices and enclosed in suitable containers hermetically sealed.

7. Meat loaf is a mixture of comminuted cooked meat, with or without spices, cereals, milk and eggs, and pressed into a loaf. If it bears a descriptive name, it corresponds thereto.

8. Mince, mince meat, is a mixture of not less than ten (10) per cent of cooked, comminuted meat, with chopped suet, apple and other fruit, salt and spices, and with sugar syrup or molasses, and with or without vinegar, fresh, concentrated, or fermented fruit juices or spirituous liquors.

F. BEVERAGES.

1. Malt liquor is a beverage made by the alcoholic fermentation of an infusion, in potable water, of barley malt and hops, with or without unmalted grains degerminated and degerminated grains.

2. Beer, is a malt liquor produced by bottom fermentation, and contains, in one hundred (100) cubic centimeters, at 20° C., not less than (5) grams of extractive matter and sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphate, and not less than two and twenty-five hundredths (2.25) grams of alcohol.

3. Lager beer, stored beer, is beer which has been stored in casks for a period of at least three months, and contains in one hundred (100) cubic centimeters, at 20° C., not less than five (5) grams of extractive matters and sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphate, and not less than two and fifty one-hundredths (2.50) grams of alcohol.

4. Malted beer is beer made of an infusion, in potable water, of barley, malt and hops, and contains in one hundred (100) cubic centimeters, at 20° C., not less than five (5) grams of extractive matter, nor less than two-tenths (0.2) gram of ash, chiefly potassium phosphate, nor less than two and twenty-five hundredths (2.25) grams of alcohol, nor less than four-tenths (0.4) gram of crude protein (nitrogen x 6.25).

5. Ale is a malt liquor produced by top fermentation, and contains, in one hundred (100) cubic centimeters, at 20° C., not less than two and seventy-five hundredths (2.75) grams of alcohol, nor less than five

(5) grams of extract, and not less than 0.16 gram of ash, chiefly potassium phosphate.

6. Porter and stout are varieties of malt liquors made in part from highly roasted malt.

D. SPIRITUOUS LIQUORS.

1. Distilled spirit is the distillate obtained from a fermented mash of cereals, molasses, sugars, fruits or other fermentable substances, and contains all the volatile flavors, essential oils and other substances derived directly from the materials used, and the higher alcohols, ethers, acids and other volatile bodies congeneric with ethyl alcohol produced during fermentation, which are carried over at the ordinary temperatures of distillation and the principal part of which is higher alcohols estimated as amylic.

2. Alcohol, cologne spirit, natural spirit, velvet spirit, or silent spirit is distilled spirit from which all, or practically all, of its constituents except ethyl alcohol and water are separated, and contains not less than 94.9 per cent (189.8 proof) by volume of ethyl alcohol.

3. New whisky is the properly distilled spirit from the properly prepared and properly fermented mash of malted grain, or of grain the starch of which has been hydrolyzed by malt; it has an alcoholic strength corresponding to the excise laws of the various countries in which it is produced, and contains in 100 liters of proof spirit not less than 100 grams of the various substances other than ethyl alcohol derived from the grain from which it is made, and of those produced during fermentation, the principal part of which consists of higher alcohols estimated as amylic.

4. Whisky (potable whisky is new whisky which has been stored in wood not less than four years without any artificial heat save that which may be imparted by warming the store house to the usual temperature, and contains in 100 liters of proof spirit not less than 200 grams of the substances found in new whisky save as they are changed or eliminated by storage and of those produced as secondary bodies during aging; and, in addition thereto, the substances extracted from the casks in which it has been stored. It contains, when prepared for consumption as permitted by the regulations of the Bureau of Internal Revenue, not less than 45 per cent by volume of ethyl alcohol, and, if no statement is made concerning its alcoholic strength, it contains not less than 50 per cent of ethyl alcohol by volume, as prescribed by law.

5. Rye whisky is whisky in the manufacture of which rye, either in a malted condition or with sufficient barley or rye malt to hydrolyze the starch, is the only grain used.

6. Bourbon whisky is a whisky made in Kentucky from a mash of Indian corn and rye, and barley malt, of which Indian corn forms more than 50 per cent.

7. Corn whisky is whisky made from malted Indian corn, or of Indian corn, the starch of which has been hydrolyzed by barley malt.

8. Blended whisky is a mixture of two or more whiskies.

9. Scotch whisky is whisky made in Scotland solely from barley malt, in the drying of which peat has been used. It contains in 100 liters of proof spirit not less than 150 grams of the various substances prescribed for whisky exclusive of those extracted from the cask.

10. Irish whisky is whisky made in Ireland, and conforms in the proportions of its various ingredients to Scotch whisky, save that it may be made of the

same materials as prescribed for whisky, and the malt used is not dried over peat.

11. New rum is properly distilled spirit made from the properly fermented clean, sound juice of the sugar cane, the clean, sound massecuite made therefrom, clean, sound molasses from the massecuite, or any sound, clean intermediate product save sugar, and contains in 100 liters of proof spirit not less than 100 grams of the volatile flavors, oils and other substances derived from the materials of which it is made, and of the substances congeneric with the ethyl alcohol produced during fermentation, which are carried over at the ordinary temperatures of distillation, the principal part of which is higher alcohols estimated as amylic.

12. Rum (potable rum) is new rum stored not less than four years in wood without any artificial heat save that which may be imparted by warming the store house to the usual temperature and contains in 100 liters of proof spirit not less than 175 grams of the substances found in new rum save as they are changed or eliminated by storage, and of those produced as secondary bodies during aging; and, in addition thereto, the substances extracted from the casks. It contains, when prepared for consumption as permitted by the regulations of the Bureau of Internal Revenue, not less than 45 per cent by volume of ethyl alcohol, and, if no statement is made concerning its alcoholic strength, it contains not less than 50 per cent by volume of ethyl alcohol as prescribed by law.

13. New brandy is a properly distilled spirit made from wine and contains in 100 liters of proof spirit not less than 100 grams of the volatile flavors, oils and other substances derived from the material from which it is made, and of the substances congeneric with ethyl alcohol produced during fermentation and carried over at the ordinary temperatures of distillation, the principal part of which consists of the higher alcohols estimated as amylic.

14. Brandy (potable brandy) is new brandy stored in wood for not less than four years without any artificial heat save that which may be imparted by warming the store house to the usual temperature, and contains in 100 liters of proof spirit not less than 150 grams of the substances found in new brandy save as they are changed or eliminated by storage, and of those produced as secondary bodies during aging; and, in addition thereto, the substances extracted from the casks in which it has been stored. It contains, when prepared for consumption as permitted by the regulations of the Bureau of the Internal Revenue, not less than 45 per cent by volume of ethyl alcohol, and, if no statement is made concerning its alcoholic strength, it contains not less than 50 per cent by volume of ethyl alcohol as prescribed by law.

15. Cognac, cognac brandy is brand produced in the departments of the Charente and Charente Inférieure, France, from wine produced in those departments.

The Secretary then requested that each State subscribe for a copy of the Proceedings saying that this would be necessary in order to secure the publication of the Proceedings of this year's convention, that there was not enough money to pay for the publication and something would have to be done to raise funds to meet this expense.

Secretary Allen moved that there be a seal purchased for the use of the Association, which was adopted.

Commissioner A. C. Bird, of Michigan, Chairman of

the Committee on Resolutions, then read the report of that Committee, containing the criticism of Secretary of Agriculture Wilson. There was a long and heated discussion on the question of the adoption of this portion of the resolutions, opened by Commissioner George M. Flanders of New York who strongly opposed such public condemnation of a cabinet officer by an Association of Food Commissioners from all parts of the country without that officer having been given an opportunity to defend himself. Commissioner Flanders stated that even if the charges were true Secretary Wilson may have had good reason for the position he took which might not be good policy for the secretary to make public at the present time and in any event Commissioner Flanders contended that it was unfair, to adopt such resolutions until the Secretary of Agriculture's side of the case was pre-

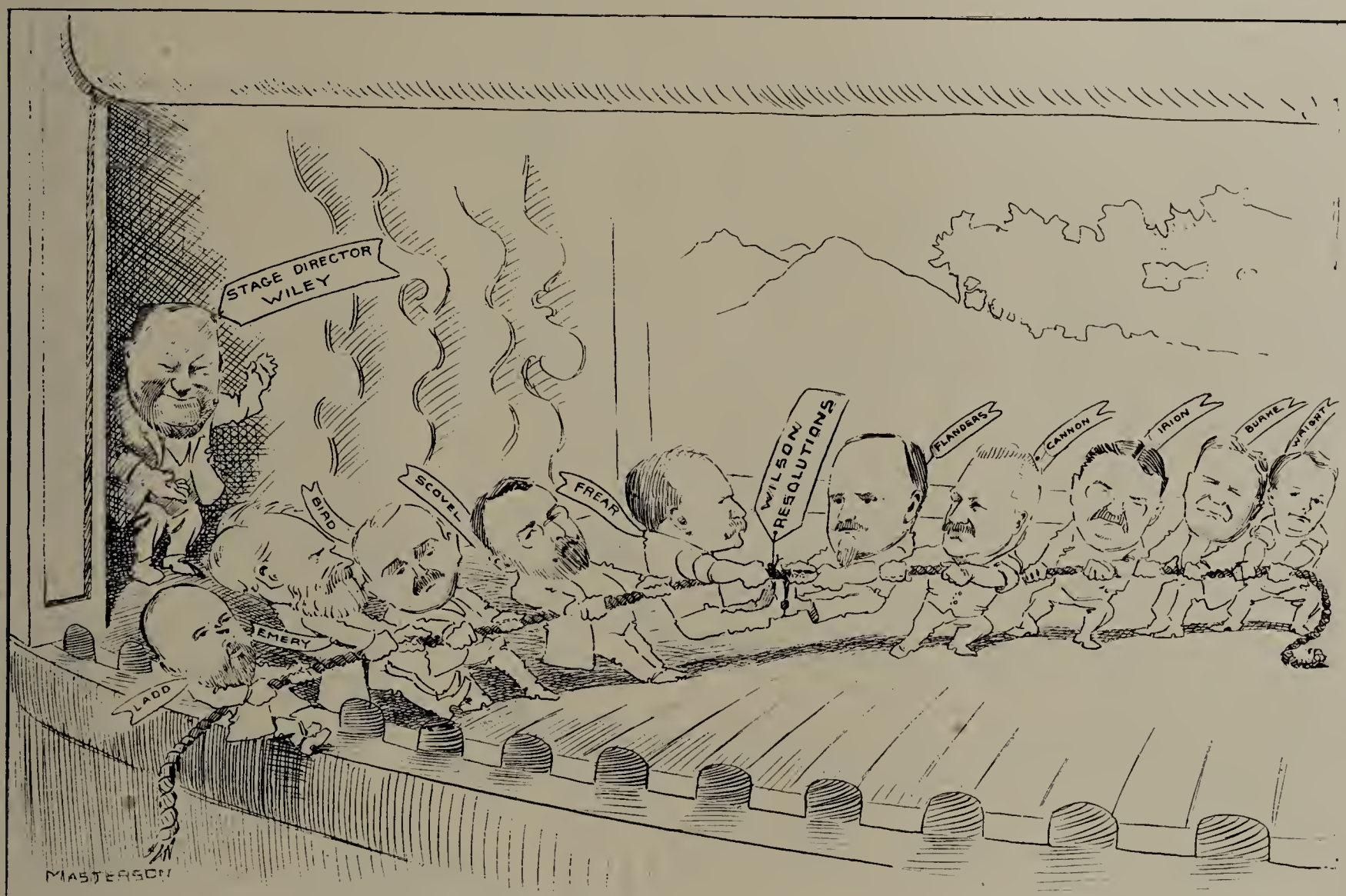
and his corps of able assistants from the Agricultural Department.

Commissioner J. Q. Emery of Wisconsin and Commissioner A. C. Bird of Michigan, also spoke in favor of the adoption of the resolutions and gave the history and the facts leading up to the reasons for the presentation of the resolutions and urged that they be adopted as presented by the committee.

On motion the report of the committee on resolutions was considered section by section and then finally adopted.

RESOLUTIONS.

RESOLVED, That the Association of State and National Food and Dairy Departments again reaffirms its allegiance to the principle of uniformity of food laws. This Association has worked faithfully and consistently



THE MASTER OF CEREMONIES STAGING THE GREAT TUG OF WAR ACT.

sented to the convention and hoped the resolution would not prevail and that he would vote against any such resolution.

Commissioner Flanders was supported in his position by Dr. C. H. Irion, President of the Louisiana Board of Health and by Commissioner Wilbur F. Cannon, of Colorado, and others. Those urging the adoption of the resolutions were led by Drs. Jenkins, of the Connecticut Experiment Station, Dr. Richard Fisher, Chemist of the Wisconsin Dairy & Food Department, Professor Wm. Frear of State College, Pennsylvania, and Prof. M. A. Scovell of the Kentucky Experiment Station, who spoke in favor of the resolutions giving their reasons for the same, while effective quiet work therefor was carried on by Wiley

towards securing such uniformity, both of requirements and interpretation, as will secure to the consuming public of every state alike ample and sufficient protection from fraud in and adulteration of food products. In support of this policy this Association welcomed the co-operation of the National Government as manifested through the department of Agriculture in making provision for the work of the Joint Standards' Committee. We believed then and we believe now that only through the deteriorations of such a committee can satisfactory foundation be laid for a uniform law.

This Association regrets that such co-operation has been withdrawn by the Secretary of Agriculture, and it is with extreme reluctance that after more than a year's delay, a year spent in fruitless effort to again enlist the support and co-operation which the Department of Agriculture previously volunteered, we are at this time forced to the conclusion that the work of the Joint Standards' Committee if continued must be provided for and sus-

tained without assistance from the National Government. The following facts have led to this conclusion:

1st. The Secretary of Agriculture was authorized by Congress to provide for the Joint Standards' Committee.

2nd. Under this authorization the support of the National Government was at first freely tendered and results eminently satisfactory were secured.

3rd. The Secretary of Agriculture, through his accredited representative, Dr. Galloway, stated before the Senate Committee on Agriculture that direct authorization of further expenditures for continuing the work of the Joint Standards' Committee was entirely unnecessary because of the fact that under the National Food and Drugs law the Secretary of Agriculture has ample authority for making expenditures to continue this work. Authority for this statement is to be found in the printed records of the proceedings of the Senate Committee on Agriculture. Accepting such statements in good faith, the friends of a vigorous administration of food law withdrew their demands for said direct appropriation.

4th. From that time to the present the Secretary of Agriculture has not again called the Joint Standards' Committee together.

5th. Because of the failure of the Secretary of Agriculture to again call together the Joint Standards' Committee, this Association at its annual convention of 1907 by formal resolution requested the Secretary of Agriculture to again aid and assist in the further continuance of the work of said Joint Standards' Committee.

6th. This resolution was promptly transmitted to the Secretary of Agriculture by the Secretary of this Association but no reply has ever been received thereto.

7th. The Secretary of Agriculture was appealed to in person by four members of the Executive Committee of this Association in November, 1907, and, at the close of said conference, stated as his definite and final conclusion that he had no power to use any of the funds appropriated by Congress for the administration of Foods and Drugs work in paying the expenses of the Joint Standards' Committee.

8th. When confronted by the written record of the report of the proceedings of the Senate Committee on Agriculture, in which his statement through Dr. Galloway is recorded, the Secretary of Agriculture did not deny his responsibility therefor.

9th. As a last resort the Executive Committee of this Association, as represented at that conference, tendered the services of the Joint Standards' Committee free from expense to the Secretary of Agriculture. The reply of the Secretary of Agriculture was directly to the effect that it would not be legal for the National Government to accept services for which it did not pay.

10th. Several months later, the Secretary of Agriculture, when requested to call together representatives of the food departments of the several states in order that a proper appeal might be made to Congress for a direct appropriation to continue the work of the Joint Standards' Committee, refused to take such action. However, regardless of these unfortunate conditions, this Association believes that the work of the Joint Standards' Committee must be continued, and hereby authorizes its continuance, and pledges its good faith that ways and means will be provided for the maintenance of said Committee.

This Association further pledges its every effort to formulate within the coming year a Food Bill founded upon the deteriorations of the Joint Standards' Committee, which Food Bill shall be formulated with a view towards uniform requirements through the several states.

This Association also pledges its best services towards securing effective co-operation between the food department of the several states in their efforts towards the securing of such uniformity.

RESOLVED, That this Association hereby authorizes and directs the present president of the Association to appoint a committee of seven of which he shall be the chairman to prepare a model state food bill, the determinations of the Joint Standards' Committee to be used as a basis of facts in the preparation of said bill.

RESOLVED, That this Association is unalterably opposed to the bleaching of flour by the oxides of nitrogen or other chemicals.

RESOLVED, That this Association is convinced that

all chemical preservatives are harmful in foods and that all kinds of food products are and may be prepared and distributed without them, and pledges its best efforts to use all moral and legal means at its disposal to exclude chemical preservatives from food products, and, to this end, we ask the cordial support of all national, state and municipal authorities charged with the enforcements of food and drug laws. And in this connection, we desire to express our gratitude for the helpful services of the medical profession generally, and especially to the American Medical Association.

RESOLVED, That the thanks of this Association be tendered to Honorable Albert J. Beveridge for the loyal and continuous efforts he has made to secure the placing of the date of preparation on all package goods of every description offered for sale to the consumer, and that we pledge him our earnest and active support in this work until it is completed.

RESOLVED, That the thanks of this Association be tendered to Honorable James R. Mann for the loyal and continuous efforts he has made to secure a statement of volume and weight on all package goods of every description offered for sale to the consumer, and that we pledge him our earnest and active support in this work until it is completed.

RESOLVED, That this Association express to President Roosevelt our warm appreciation of his reference, in his message to Congress of the work of the State Food Control Officials, and we respectfully petition the President to assist us with Congress and the Secretary of Agriculture in bringing about a practical basis for co-operation between the Federal Government and the States in the establishment of facts and the investigation of food control problems.

RESOLVED, That the Association of State and National Food and Dairy Departments express its sincere appreciation to the Honorable Charles W. Fairbanks, Vice President of the United States, for his presence, remarks and manifest interest in the work of this Association, at its session Thursday morning, August 6, 1908.

The resolutions were ably seconded by the Washington Whisky ring crowd. It was generally understood throughout the convention that the resolutions were a plea for employment by the Joint Standards Committee, and that if Wiley cannot secure employment for them, he will be unable to hold them in line any longer.

The report of the committee appointed to examine the accounts of the late Treasurer Bruner was read and adopted. The Treasurer's accounts were found to be correct.

Dr. C. H. Irion, President of the Louisiana State Board of Health suggested that the membership fee be increased from \$10.00 to \$25.00 and that steps should be taken to increase the revenues of the association.

President Ladd then announced the appointment of the following committees:

Committee on the Preparation of a Uniform Sanitary Bill—H. E. Barnard, Indiana; E. H. S. Bailey, Kansas; T. J. Bryan, Illinois; Geo. M. Flanders, New York; L. Davies, State of Washington; J. H. Worst, North Dakota; Charles D. Howard, New Hampshire.

Committee on Uniform Food Law—M. A. Scovell, Kentucky; R. A. Pierson, New York; A. C. Bird, Michigan; James Foust, Pennsylvania; R. M. Allen, Kentucky; W. D. Bigelow, Washington, D. C.

New Members of Standard Committee—Prof. J. H. Shepard, South Dakota; Charles D. Woods, Maine.

On motion, the convention adjourned sine die.

Dr. J. H. Beal of Scio, Ohio, Drug Inspector for Ohio Dairy and Food Commission, has resigned his position to accept the editorship of the Midland Druggist of Columbus, Ohio.

CONVENTION NOTES

The people who knock the referee board must not forget that a knock is oftentimes a boost.

* * *

Prof. F. F. Ladd, president of the association, was in the East several weeks before the convention.

* * *

The strange feature of the ptomaine poisoning of the food officials was that all the other guests at the hotel were immune.

* * *

One of the deals that did not go through was the creating of HONORARY MEMBERSHIP for certain manufacturers who are GOOD.

* * *

The shutting out of the executive committee meetings of Dr. R. E. Blouin director Louisiana Sugar experiment station, was not legal, Dr. Blouin being a legal delegate.

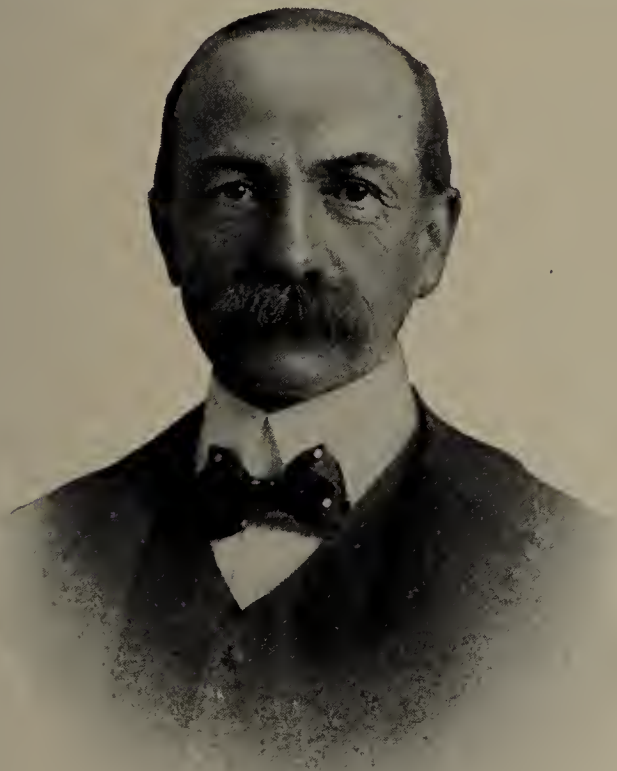
* * *

Commissioner Burke of Wyoming stated that he only permitted the use of his name as a sacrifice to the open door policy, claiming he had no show for election against the Washington combination.

* * *

How does it happen that a great state like Illinois does not get a member of the Standard Committee? It has had representatives at every convention since the association was organized. Maine attends the convention for the first time and gets a member.

The death of Hon. J. B. Noble, Dairy and Food Commissioner of Connecticut, which was announced



HON. J B NOBLE (DECEASED)

at the Convention, removed the oldest Commissioner in point of service in this country. Commissioner Noble was one of the original organizers of The Association and has probably attended more conventions than any other Food Control official.

Owing to lack of space we are forced to omit many of the addresses delivered at the Convention and which are already in type. However, we will print in the September issue and subsequent numbers the papers in full.

* * *

Many members of the convention had not seen a program until they arrived at the Island. The secretary's neglect to prepare and send out programs 30 days in advance as per custom was freely and adversely commented upon.

* * *

An effort was made by certain parties attending the convention to connect Prof. Ira Remsen, Chairman of the Referee Board with the manufacturers of saccharin, because of the fact that saccharin was discovered by Fahlberg in the laboratory of the Johns Hopkins University.

* * *

THE AMERICAN FOOD JOURNAL acknowledges a visit on their return from the convention of the following commissioners: Mr. and Mrs. A. H. Wheaton, of South Dakota; Prof. and Mrs. J. H. Shepard, of South Dakota; Commissioner E. W. Burke, of Wyoming; Dr. C. H. Irion, of Louisiana.

FOOD NOTES

Commissioner Dunlap of Ohio recently appointed Mr. Geo. E. Scott as Dairy Inspector in his department. This is the first inspector to be assigned exclusively to dairy work in the Buckeye state, because of insufficient appropriations. At the next session of the legislature efforts will be made to increase the appropriation for dairy work, and to enlarge the powers of the department in this direction.

* * *

Commissioner Dunlap has also increased his office force by the appointment of Fred W. Moyer, of Springfield, as chief clerk, and Lawrence Gregg, of Washington, as clerk, the recent legislature having increased the appropriations for clerical services to meet the growing necessities of the department. The importance of inspection work is becoming more and more recognized in Ohio, and this department is now one of the best equipped in the country.

DISTILLERS' CASE CONTINUED.

The case between the distillers and the Internal Revenue department of the government came up again in Cincinnati, August 13. District Attorney McPherson applied for a continuance of thirty days, because Assistant Attorney-General Fowler, who had been appointed to assist him, was called away on account of illness. Judge Thompson granted a continuance until August 22. The present matter is an application for a temporary injunction against Collector Bettman and his gaugers to restrain them from branding whisky in the hands of the rectifiers as "imitation" whisky, under the rule issued May 25. Judge Thompson refused to issue any temporary restraining order at this time.

MISSOURI FOOD LAW HELD UNCONSTITUTIONAL

Judge Park, in the circuit court of Jackson county, Missouri, Saturday, August 1, in a decision in the case of Max and S. M. Emrich, doing a partnership business as Emrich Vinegar and Pickling Co., against R. M. Washburn and M. H. Lamb, defendants, declared the Missouri pure food law unconstitutional.

In this case an injunction was asked for to restrain the food commissioner from prohibiting the sale of corn sugar vinegar which he had been doing under the contention that the goods were colored to represent cider vinegar and therefore adulterated according to the terms of the law.

The Emrich concern in common with other manufacturers of the state had been making corn sugar vinegar from corn sugar, principally made and sold by the Corn Products Company, with plants in two or three states, and who sold the particular corn sugar from which this vinegar was made. It is the principle of this company to stand back of every purchaser of its goods when used as they believe in a legitimate way.

Theodore B. Wagner of Chicago, associated with the Corn Products Company in an advisory, chemical and administrative capacity, testified as to the sugar made by his company. He said: "We make 70 degrees and 80 degrees sugar—corn sugar. The 70 degrees product contains 10 per cent of dextrine, 70 of dextrose and 20 of water. The 80 degree product has 8 per cent of dextrine, 80 of dextrose and 12 of water."

He said the Corn Products Company used no coloring matter in making the corn sugar. An employe of the Emrich company explained the process used in their factory in making corn sugar vinegar, testifying that no coloring material aside from the corn sugar was used. He said: "No. 80 corn sugar is dissolved in water. Then yeast is added and the whole mass poured over beech shavings in order that it may be oxidized. Then it is drained and ready for market. It is straw-colored and delivered to the consumer at the same color."

Judge Park also made a test by dissolving some of the sugar in a glass of water and compared the color with corn sugar vinegar made by the Emrich firm.

Judge Park decided that in the sale of corn sugar vinegar there not only had been no violation of law but that the commissioner is without power to enforce the provisions of the law because of technicalities.

The principle ground on which the law was declared unconstitutional was that in the bill creating the office of dairy and food commissioner, the subject of the law was not expressed in the title.

As Commissioner Washburn had resigned since the case was started the decision applied only against Acting Commissioner Lamb, except as to costs, which must be shared by ex-Commissioner Washburn. It has been thought that the expectation of this decision, which deprives the commissioner of money for salary accounts, had considerable influence in deciding Commissioner Washburn to send in his resignation.

An appeal was taken by the state, but it is likely that before the case can be reached in the supreme court the legislature of the state will have an opportunity of passing another food law.

E. A. Krauthoff, special counsel for the state, and Rush C. Lake, assistant attorney-general of Missouri,

handled the case for the state, and E. S. Scarritt for the Emrich Vinegar and Pickling Co.

The decision in full is as follows:

The court concludes, as the law of the case, that said act of March 22, 1907, being entitled, "An act to amend an act entitled 'An act to create the office of state dairy commissioner and to define his term of office, duties and powers,' approved April 8, 1905, by repealing sections 1 and 2, and enacting three new sections in lieu thereof to be known as sections 1, 2 and 2a; and by adding eight new sections thereto, to be known as sections 10, 11, 12, 13, 14, 15, 16 and 17; and appropriating money for the enforcement of said act as amended," contravenes Article IV, Section 28 of the Constitution of Missouri, in that the subject of legislation is not expressed in said title, and, therefore, that defendants Washburn and Lamb, claiming the power to investigate and condemn plaintiffs' said vinegar only because of the existence of said act approved March 22, 1907, were and are without rightful power and authority so to do.

Wherefore, it is considered, ordered and decreed that this action abate as to defendant Washburn, and that no relief be granted against him, except as to costs; that defendant Lamb, his servants, agents and successors, be and they are hereby permanently enjoined and restrained from hereafter seizing or taking possession of vinegar of the plaintiffs made from No. 80 corn sugar and from in any manner molesting plaintiffs' business or intruding thereon. And it is further considered, ordered and decreed that plaintiffs recover of and from the defendants all their costs herein laid out and expended and that execution issue therefor.

In the Circuit Court of Jackson County, Missouri, at Kansas City.

Max Emrich and L. M. Emrich, doing business as partners under the name of Emrich Vinegar & Pickle Co., plaintiffs, vs. R. M. Washburn and M. H. Lamb, defendants. No. 38584.

Final Decree.

Now on this 31st day of July, 1908, this cause coming on finally to be heard, the plaintiffs appear in person and by Scarritt, Scarritt & Jones and Thomas E. Lannon, their attorneys, and the defendants appear by Rush C. Lake, Assistant Attorney General of the State of Missouri, and the firm of Karnes, New & Kruthoff appear at the request and as a friend of the court, and thereupon the cause is submitted to the court upon the pleadings and the evidence, and the court having heard the arguments of counsel, and being fully advised in the premises, doth find that, during the pendency of this action defendant Washburn has resigned his pretended office of Dairy and Food Commissioner of the State of Missouri, that this said resignation has been accepted by the governor of said state, and that defendant Lamb has been by the governor appointed and is now acting dairy and food commissioner in and for said state and the successor in office of defendant Washburn.

Corn Sugar Legal.

As between plaintiffs and defendant Lamb the court finds, generally, all and singular the issues in favor of plaintiffs and against said defendant, and being requested by both parties to make findings upon certain particular issues the court specifically finds that the vinegar manufactured and sold by plaintiffs at the time of the institution of this action, being manufactured

from No. 80 corn sugar and known as "Corn Sugar Vinegar," was and is pure, wholesome and free from all deleterious substances and ingredients; that it was and is not colored in any manner whereby damage and inferiority was or is concealed; that it was and is free from artificial coloring, and that it did and does not appear to be better or of greater value than it really is, and that it did and does conform to the laws of the state of Missouri.

Hearing Was Held.

The court further finds that prior to the institution of this action defendant Washburn had been appointed Dairy and Food Commissioner of the State of Missouri under an act of the General Assembly of the said State, approved March 22nd, 1907, Sess. Laws Mo. 1907, pp. 246, 254, and defendant Lamb was appointed deputy to said defendant Washburn, that said defendant Washburn, in a bona fide attempt to carry out the provisions of said act procured from plaintiffs a sample of the "Corn Sugar Vinegar" heretofore mentioned, made from No. 80 corn sugar heretofore referred to, submitted a part thereof to the Chemist of the State Experimental Station, and was by him informed that said sample did not conform to the laws of Missouri, that thereupon plaintiffs were notified thereof and a hearing was had before said Washburn at which hearing plaintiffs were present in person and by attorneys, and evidence was heard, that after such hearing defendant Washburn made a pretended finding that the vinegar in question was colored so as to conceal damage and inferiority, that it contained artificial coloring and was made to appear better and of greater value than it really was, that thereupon defendant Washburn notified and threatened plaintiffs that he would, through defendant Lamb as his deputy, on April 25, 1908, seize all the glucose or corn sugar vinegar of plaintiffs which was of the same kind as the sample, referred to, and that such vinegar would be condemned and destroyed, and defendants and each of them were about to carry said threat into execution, when prevented by the restraining order issued herein.

The court further finds that defendants and each of them in all the proceedings referred to were endeavoring with honest purpose to enforce and carry into execution said act of the legislature approved March 22nd, 1907, and that they acted without malice or oppression.

The court further finds that prior to the institution of this action plaintiffs had built up a business of considerable magnitude, and had procured unexecuted orders for the vinegar in question to the extent of one thousand barrels or more, that in consequence of publicity given to the acts of defendants, many of such orders were cancelled, the good will of plaintiffs' business injured, and plaintiffs were damaged in many particulars impossible of admeasurement in a court of law.

NEW AND IMPORTANT INTERNAL REVENUE DECISION.

(T. D. 1404.)

Marking and branding high-proof spirits.

(Int. Rev. Minn. Circular No. 573.)

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., August 6, 1908.

To collectors of internal revenue:

In certain collection districts where high-proof spirits are produced, collectors and gauging officers have

been restrained by the court from carrying out the regulations of this Department at distilleries named in such restraining orders as to marking of what was formerly denominated pure, neutral, or cologne spirits as alcohol.

The orders of the court also require that the product herein named should be marked "spirits."

Collectors have been directed to obey the orders of the court in this respect, but that the marking of such product "spirits" instead of "alcohol" is to be permitted only in the cases of the distillers in whose behalf the restraining orders are issued.

Collectors are now informed that the regulations, Circular 723, herein referred to, have not been rescinded, suspended or modified and must be strictly observed except in so far as the proper officers are restrained by orders of court from carrying into effect the requirements of said circular as to the marking of the particular form of distilled spirits above referred to, as this office, in view of the opinion of the Attorney-General, does not accept as final the present ruling of the court in this respect.

The particular form of distilled spirits in question will still be classified as alcohol, and for purposes of identification on the records and returns collectors will require that the serial number of the package be followed by a letter S in red ink, which will be understood to mean that the package was marked "spirits" pursuant to the order of the court.

When change of package, either actual or constructive, is made at a rectifying house or on the premises of a wholesale liquor dealer with respect to packages of alcohol marked "spirits" under the order of the court as above, the derived package will be marked strictly in accordance with the requirements of Circular 723.

Robt. Williams, Jr., Acting Commissioner.

A QUESTION OF FEES

There exists a tendency among some of us—men who are, for the most part, honest and honorable—which is, it seems to me, below the dignity of our calling. I refer to the tendency to regulate one's fees according to the means of his patient. It is well that a man should have a more or less definite estimate of the value of his services, a fixed maximal charge for work of a certain character, a charge which, in justice to himself, he should always make, unless he has reason to believe that the patient is not in condition to meet it. He will often, with a large proportion of his patients, perhaps, be obliged to accept less than the value of his services. But that he should speculate on the wealth of the rich, that he should demand exceptional recompense from the millionaire because of his wealth, is to make medicine a trade; is to bring distrust and suspicion and discredit on his profession; is to put a serious obstacle in the way of all the great reforms which we as physicians and sanitarians hope to accomplish.—Thayer, in *American Medicine*.

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WHAT WILL THE PRESIDENT DO ABOUT IT?

The brazen effrontery with which resolutions attacking their superior officer, the Secretary of Agriculture, were fomented, fostered and forced through the Convention of State and National Food officials, just held at Mackinac Island, by the representatives of the Bureau of Chemistry of the Department of Agriculture, marks the beginning of the end of the efforts of Harvey W. Wiley to build up a machine for himself, which would have made him more powerful than the President and by means of which he would have been able to hold all the food interests of the United States in the hollow of his hand. He has played for high stakes and lost unless he succeeds in deluding the President and the people by means of these resolutions, attributable solely to his guiding hand. The farce of his feeble defense of his chief, whom he damned by faint praise, was well understood and thoroughly appreciated by those who were and always have been behind the scenes, or in a position to see behind them. It must be understood in the first place that the Convention as at present constituted is composed of two sets of office holders, one known as the Association of Official Agricultural Chemists, organized by Dr. Wiley out of the chemists of his Department or those affiliated with it, and who were controlled by him either by virtue of their subordinate positions or by virtue of the patronage or "pape" which he could distribute. He had a "Food Standards Committee appointed by this Association of which he was a member as well as the moving and guiding spirit; which was used principally to give the appearance of respectability to his ideas about food regulations. He succeeded in securing for it an official standing through an appropriation act so that through it he could force his views upon the Secretary of Agriculture. When Congress, however, began to see as through a glass, dimly, the authorization was stricken from the law.

Before this, however, it became apparent to Dr. Wiley that the Association of Official Agricultural Chemists was too closely identified with himself to enable him to conceal his hand and his purpose. Therefore he laid his plans to control the National Association of State Dairy and Food Departments, composed of State Food Commissioners, their chemists and assistants, for the purpose of having it appear to the public and the press that here was an independent organization representing the "deere peepul" which supported his views "in toto." As a matter of fact he controlled

this organization like he did the other organization, through those employed by him, directly and indirectly, and those who were hopeful of future employment. Among the latter was the Secretary of the Association, R. M. Allan, who for the faithful services in that capacity to both Dr. Wiley and the Bottled-in-bond Whisky interest, was rewarded by appointment as assistant to Attorney General Bonaparte (though he is not a lawyer), after Secretary Wilson, learning of his special activities in behalf of Bottled-in-bond Whisky, had refused to appoint him in his Department.

The conquest of this Association was purchased at a considerable sacrifice and by the use of every ounce of power he possessed. He was compelled to use political power to depose the chemists who opposed some of his plans. He bribed others with the plumbs that the appropriation for the food act placed in his hands. He was forced to enlarge the Standards Committee to make it appear that the State officials would have a peep in. Finally he had to make the Association change its name and objects and admit himself and the Government officials to a voice and vote. He finally succeeded in getting the organization so well in hand that it was no longer necessary for him to appear to take an active part at all times.

Let it not be understood, however, that all of the members of either association are his puppets. Far from it.

There are a number of independent men and thinkers among the members of both associations who have objected to making Pure Food laws ridiculous, after the Wiley fashion, and who have struggled for reasonable and sensible regulations, and for the establishment of definitions and standards in accordance with common sense and common understanding of terms; but there was nothing sensational about their views, and their definitions and standards did not give radical food officials many opportunities to "twist the tails" of food manufacturers, so they became objectionable to Dr. Wiley, who used the combine to put them in positions where they could do nothing to interfere with his plans. The passage of the Foods and Drugs Act June 30, 1906, without any authority to Dr. Wiley to legalize his arbitrary standards, was a great back set to his plans to place the food manufacturers at his mercy; and notwithstanding the clearly expressed purpose of Congress that neither Dr. Wiley nor his Standards Committee should have any authority to fix standards or establish definitions, he arrogantly declared that he would go ahead and do it anyhow. But he over-estimated the power of himself and his army of janizaries and he under-estimated the force of the rugged Scotch honesty of the Secretary of Agriculture, which stood as the Rock of Gibraltar between him and the accomplishment of his schemes; and in this the Secretary of Agriculture was not only backed but prompted by the President. A Board of Foods and Drugs Inspection was created and when this Board proved inadequate to cope with the Wiley machine, the President appointed a commission above them. Wiley was a member of the Board, but he was not a member of the Commission. This was a blow to the "machine," and plans were started to rehabilitate the Standards Committee and remove Secretary Wilson's opposition. The Secretary saw through the scheme and he had in mind what Congress had said should not be done.

A newspaper attack was first made on him by having it appear that he was standing in the way of pure Food enforcement, when he was only insisting that

the Pure Food Law should not be made ridiculous. This form of attack failing, Wiley decided that his joint Standard Committee should make a personal appeal to the President for reinstatement to power; and to make it appear as if he had nothing to do with the matter, Wiley absented himself from Washington while the Committee was there. The President, however, saw through the scheme also, and treated their petition as an application to be again placed on the salary list, which he diplomatically and adroitly declined to do. In presenting their petition to the President, the Committee did not tell him the whole truth, and he fathomed it.

Now comes the last discharge from their artillery in the shape of the Mackinac Resolutions. The combine knew that in reality they were attacking the President over the shoulder of Secretary Wilson, but they thought that the soft soap which they threw at the President in the resolutions would blind the public and direct fire against the Secretary, while at the same time it would embarrass the President, if he continued to turn a deaf ear to their entreaties.

The situation would be phenomenal if it were not so ridiculous. But what will the President do about it? Will he ignore a revolt organized by members of his own family, and directed against himself, as well as one of his secretaries, or will he succumb; or will he know anything about the matter? It has been said that there is a ring around the White House that keeps from the President all information except such as the ring desires to reach him. Will the history of the Wiley revolt ever reach him, and if so, in what form? From Mackinac comes the news that some standards which were established last year by the joint Standards Committee were changed this year. In other words, articles of food which were legal last year are illegal this year; and articles of food which were illegal last year are legal food this year. That is, such would be the case if Wiley's joint Standards Committee were given the power which they crave, but which Congress and Secretary Wilson think they should not have. Nothing more was needed to justify the wisdom of Congress than this change of standards within a year. But will the President overlook Wiley's offense? It does not necessarily depend upon the influence of the Needham-Whisky Lobby.

QUIBBLING IN KANSAS.

The Kansas State Board of Health issues a monthly bulletin. In this bulletin are usually a few vital statistics, some technical papers, and much general information in regard to rules of health of interest to the public, to say nothing of the valuable moral and religious contributions. Since the Kansas Pure Food Law was passed the bulletin has been the medium of publicity for the various organizations concerned in the enforcement of the food law. In the 5th and 6th numbers of this bulletin Drs. Bailey and Jackson publish some data as to a number of foodstuffs examined, some being pronounced legal and some misbranded. If in conformity with the Kansas Food law and the constitution of the state and nation we see no objection to the advertisement of one man and the punishment of another without formality of law or opportunity for defense, but we do not believe it to be the intention of the people of Kansas to place as much emphasis as this report does on picayune matters, as it cannot help but obscure matters that are of

importance to the citizens of Kansas. Judging by the remarks on the samples recorded the state is not spending money wisely nor legitimately in enforcing a food law.

For example, we take from the two dozen samples mentioned in these reports a few which characterize this report.

No. 7182 Lemon Extract:

Label "Chapman's Artificially Colored Extract of Lemon," 23 Full Strength and Measure."

Remarks. "The Bottle has no statement as to color. It is highly colored yellow with a dye and is therefore misbranded."

The statement appears absolutely contradictory. Nothing could be plainer apparently than the fact of artificial color being stated on the label in the very name of the goods. It is plainness personified. But perhaps we must take the words literally and conclude that the declaration of color should have been blown in the bottle. Or perhaps the color of the bottle was not specified. It is highly colored yellow with a dye it is claimed. This certainly is a new scheme and it looks like a good one. The yellow bottle would cause the contents to look yellow in imitation of lemon extract colored with lemon peel. How be it if we were disposed to be as critical as these chemists we would say that the statement that the bottle is colored yellow with a dye is somewhat tautological, somewhat indefinite and somewhat incorrect. "Dye" and "color" as verbs were originally of synonymous signification. Usage, however, has given to the verb "dye" a particular meaning as applied to the coloring of fabrics and the coloring agent used for this purpose whether it be of mineral or vegetable origin, natural or synthetic, has become to be known as a dye stuff. The coloring agents used on woods are not called dyestuffs but are called paints or varnishes. In liquids, and foods generally the term coloring matter is employed. The term pigment could perhaps be substituted for coloring material where ever used.

If dye is used as synonymous with "dye stuff" and dye stuff as meaning the same as pigment or coloring material, the statement that it is highly colored yellow with a dye does not mean much. It would have been important information to have stated what the dye stuff was, whether lemon peel, orchil, tropaeolin, curcuma or any of the various yellow dyestuffs and pigments of synthetic or mineral origin; or if the limitations of chemical sciences does not admit of exact classification to at least have stated the group or class to which the dyestuff belongs. It is true that in the awakening of the public to the importance of pure food laws the hyperbole has been somewhat over worked and food colors have been referred to as dyes and colored foods as being dyed, also foods preserved with chemical agents as being embalmed, but such statement should be left to the penny press and not receive encouragement from scientific men in scientific publications. The sensational news paper takes sufficient liberties with the plain statements of fact of the scientist, so much so that the conscientious savant like Koch for instance avoids reporters altogether, even to the point of rudeness. Now that the people have even an exaggerated idea of the prevalence and dangers of food adulteration there is no need of any argument, but the absolute truth and without doubt everything beyond that will react on the users even as it has al-

ready commenced to react on Dr. Wiley and his press bureau notoriety.

But to resume with the next sample in the bulletin:

"No. 7177, Lemon Extract. Pure concentrated extract of lemon on the carton. * * * It claims to contain not in excess of 60 per cent of alcohol and 3 per cent of lemon oil. It does not contain 60 per cent of alcohol. Contains only a trace of lemon oil and is therefore illegal."

If the carton was labeled "concentrated" and the goods did not conform to this description, irrespective of what the label of the goods may have been, a fraud is certainly being practiced in the sale of these goods. However, by the analyst's statement the goods did not contain in excess of 60 per cent of alcohol or 3 per cent of lemon oil, and the statement on the goods is therefore absolutely correct although such form of statement cannot be commended, and undoubtedly is put in such form so as to be misleading to the ordinary buyer, but should not have deceived the chemist.

"No. 968, Lemon Extract. Label extract of lemon. * * * Contains slight trace of lemon oil. Illegal. The price of this one ounce bottle is 10 cents; therefore the purchaser is paying 10 cents for one ounce of flavored water."

This is likely a terpenless lemon extract and should have been so labeled. As to paying 10 cents for flavored water, the purchaser is buying flavoring. He cares not for the alcohol or other menstrum in which the flavor may be dissolved. It is dissipated in the proper use of the extract anyway. In fact temperance people advocate the use of non-alcoholic flavoring extracts which in the form of solid extracts are practical for certain uses. "Flavor" is the important, useful product for which the purchaser parts with his ten cents. The menstrum, water and alcohol, bottle, label and cork are necessary but incidental accompaniments. But the statement that the extract consisted of flavored water cannot be true, as even citral or any other lemon flavoring material requires some alcohol for solution and oil of lemon of which the extract is said to contain a trace, requires even for traces a very large amount of alcohol.

No. 3500, "Powdered Sugar." * * * "This sample is one of several that were purchased in Lawrence. It contains a small quantity of starch which was added of course to keep the sugar dry, so that it would not become lumpy. As it showed 99.96 per cent of sucrose the amount of starch is very small."

Indeed it certainly is; 99.96 per cent pure practically 100 per cent, as the difference—.04 per cent—is easily within the range of analytical error. 99.96 per cent purity is far purer than any so-called chemically pure chemical reagents which are made as pure as possible, without regard to cost. It is of greater purity than any of the 260 samples of sugar analyzed a number of years ago by different chemists for the government. It is even higher than a carefully prepared test sample of sugar sent out by the Government for the purpose of standardizing polariscopes which sample tested 99.7 sucrose. That a sample of sugar containing 99.96 per cent of sucrose even if it contained absolutely no moisture, could contain sufficient starch to keep the sugar dry so that it would not become lumpy is beyond the bounds of possibility.

"No. 1283. Pure Grape Baking Powder." * * * "As cream of tartar is made from grape wine the in-

ference is that this is a cream of tartar powder and the statement that it contains other ingredients does not overcome the impression that the false picture and name may produce."

The objection to the falsely suggestive label is commendable although chemists generally will not subscribe to the statement that cream of tartar is made from grape wine, but will put more faith in the technological hand books which say that cream of tartar is made from argols precipitated from grape juice by the formation of alcohol in the process of wine manufacture.

No. 7157. "Baking Powder." * * * "Pure, double strength, price 10 cents. Composed of bicarbonate of soda, soda, alum and corn starch." This is an ordinary baking powder and affords on being mixed with water an ordinary amount of available carbon dioxide. The total carbon dioxide yielded by this powder is only 17.25 per cent, and this is more than the available carbon dioxide. Comparing this with the ordinary standard baking powder it will be seen that it is theoretically impossible to prepare a powder of double strength. The statement double strength on the label is for the purpose of making the powder appear better than it really is. It is *not of double strength* and consequently misbranded. Illegal."

This certainly is a peculiar baking powder. It contains only 17.25 total carbon dioxide. Baking powders as examined by Crampton, Weber, Eaton, McGill and others run generally from 8 to 13 per cent with a few deteriorated powders between 4 and 8 and an exceptionally high strength powder of 14 per cent. This powder yields only 17.25 per cent. Mr. Crampton, when in the chemical division of the Department of Agriculture, recommended a formulae which when freshly made yielded 10.91 per cent of available carbon dioxide with the remark that this amount of gas was considerable higher than the average of the commercial samples. If not of double strength the housewife should be cautioned against using an overdose of this 17.25 per cent powder. It looks almost too good for 10c.

We will quote but one other sample from this bulletin, a sample of Artificial Extract of Strawberry put up by Price Flavoring Extract Co., on the label of which occurs the statement:

"This cannot be made from the fruit; there are no true flavoring extracts of raspberry, strawberry or pineapple upon the market. It is impossible to obtain flavoring extracts from these fruits." The Bulletin says:

"In respect to their claim—meaning the Price Flavoring Extract Company—that it is impossible to obtain flavoring extracts from the fruits named, it should be said that pharmacutists prepare genuine flavoring extracts from the fruits. These naturally are very expensive and it is probably true that they are not on the market. It is, however, untrue to say that they cannot be prepared."

Every one but these Kansas chemists know the statement to be true that the flavor of the fruits mentioned are not susceptible to concentration so as to be used as flavoring extracts by the housewife. So-called concentrated fruit juices and syrups are prepared and sold for use with soda fountains as are the original fruits themselves, but these are entirely different from flavoring extracts. Indeed the food laws of Michigan, Illinois and several other states contain the clause "Extracts which can not be made from the fruit, berry or bean and must necessarily be made artificially, as

raspberry, strawberry, etc., shall be labeled 'artificial.' When a firm which is particularly desirous of putting up the best of that the market affords and in the few cases where flavoring extracts from true fruits cannot be made at least with present knowledge, wish to make that statement in justification of putting out an imitation or artificial extract in conformity with our food laws and in deference to public demand, their business integrity as manufacturers should not be thus assailed without warrant. Again in the remarks on "Jelly Dessert—Strawberry Flavor" put up by the same firm, it is said that the flavor has a suggestion of artificial strawberry flavor. The Price Flavoring Extract Company say that this suggestion of strawberry flavor is produced from the true fruit and although the goods are sold all over the country no adverse comment on them has ever been made in any chemical report. Such character attacks without warrant, without proof, without even the manliness of a positive statement, but cramped behind the inuendo of a suggestion, should not be countenanced in a report paid for by the people who are interdependent as we all are on honest trade and the legitimate exchange of commodities.

A good state food law and capable, conscientious food officials to enforce it is a boom to any state. The state should see to it that the dignity of the law is upheld, that it be used to minister to the people instead of embarrassing them, that above all it should not be used to arm injustice or protect the ill use of power.

SHIFTING THE RESPONSIBILITY FOR A POOR FOOD LAW.

The attempt of certain state food commissioners and chemists, backed by Dr. H. W. Wiley, to hold Secretary of Agriculture James Wilson responsible for the defects of the National Food Law will not meet with favor outside the circle of the subsidized satellites of the Bureau of Chemistry. It is the duty of the Secretary of Agriculture to enforce the law if it is capable of enforcement. He cannot enforce opinions or the ideas of Tom, Dick and Harry not written into the law. In as far the law is enforceable Secretary Wilson appears to be doing all he can to enforce it and has instituted successful suits in the enforcement of the law as applied to the District of Columbia and the Territories and on imported and exported articles of food. He undoubtedly, on the advice of the best attorneys in his department, has been seemingly careful not to bring suits on questionable cases involving interstate commerce where the constitutionality of the act may be involved. There have been strong forces at work ever since the law was passed to ignore some of it, to misinterpret other sections of it, and to add to it by framing unwarranted rulings and standards not authorized nor contemplated in the law. These standards, or rather the authority to make and enforce them, was advocated by the American Food Journal at the time the bill was before congress.

Largely through our efforts—as was generally acknowledged—we had the original draft of the act changed in the House to give authority to a standard committee composed of members of the State Dairy and Food departments and the Association of Official Agricultural Chemists, in equal representation, to fix standards for the enforcement of the act. The power to frame standards, however, was objected to in the Senate by Senators McCumber and Heyburn and the conference bill as passed accepted the view of the Sen-

ate on this proposition. The explanation of the Senate conferees to the parent body on this proposition is plain to bluntness.

Senator Heyburn said: "If there is anything that this bill, and especially that this section of it does not provide, it is for the fixing of standards by anybody. This bill fixes no standards upon anything. It authorizes no officer to fix any standard. It provides that the courts and the courts alone may determine whether or not an article is contraband under the provisions of this act."

Senator McCumber said: "The Senate has always contended that the power to fix standards should not be given to any man, and the House conferees receded from that portion of the House amendment and it goes out."

That Secretary Wilson should be held responsible for not authorizing something not written in the law, but, on the contrary, stricken from the original act "for cause," is manifestly unjust.

But the resolutions of the State Food Commissioners and their chemists were aimed at a still higher official. It is known that President Roosevelt has taken an unusual interest in the enforcement of the food law. Secretary Wilson is known to have conferred with the President and Attorney General on all important phases of the law. When Dr. Wiley succeeded in convincing the President that his definition of whiskey was true and all others were false and that the clause defining a blend in the food law could be construed against the interest of those who had it inserted, he crowed long and lustily over his victory. But when he has boldly demanded authority and power not granted in the act he has met with defeat. On the standard proposition the president of the association and part of the members who framed and signed the resolutions in a conference with President Roosevelt and Secretary Wilson were made thoroughly conversant with the situation and knew then, as they know now, that Secretary Wilson is in entire harmony with President Roosevelt on the question of the enforcement of the food law. The referee board to which the Wiley cohorts objected most strenuously but dared not openly oppose was the unaided creation of the President. It is thus plainly apparent that Dr. Wiley is using his power with the chemists and commissioners, through whom he distributes patronage, to force the President into the enforcement of a food bill that failed to become a law.

PTOMAIN POISONING AT MACKINAC.

Providence was unkind to the Food Commissioners in convention at Mackinac Island in at least one respect. Although the convention headquarters was in one of the highest priced hotels in the country; although a poor man would almost bankrupt the State by selecting a comfortable room and bath; although the food was supposed to be the best, and the purest that money could buy, forty or fifty food commissioners and their friends were poisoned from eating impure food. Just what particular article of food was to blame could not be definitely established. It was generally thought, however, that the food at fault was either fish that had been held in cold storage or chicken carried in the same way, or both. At least when the guests eschewed these articles of diet the symptoms of poisoning disappeared. It seems unreasonable that in the best fishing country in the world, in the center of the fresh lake system of North America, where people travel hundreds of miles

particularly to get white fish fresh from the cold waters of the North, that guests should be served decomposing fish. Cold storage in itself cannot be held at fault. The experience of many years has proven that refrigerated foods if not held too long are perfectly healthful and suffer little in any respect if used at once. Some products, as meats and *chêese*, under certain conditions and within recognized time limits, unquestionably improve in quality and value. However, all goods held in cold storage decompose quickly when brought into the atmosphere of ordinary life and consequently these foods should be consumed at once. Fish is particularly liable to generate poisonous decomposition products, as is evidenced by the large number of instances of ptomaine poisoning traced to canned salmon, lobster, clams and oysters. Such poisoning, however, has rarely, if ever, been ascribed to nitrogenous materials preserved with chemical preservatives, and there is every reason to believe, although the fact may not have been experimentally proven, that the preservatives prevent the production of poisonous ptomaines. Indeed Eckles, Langton and others say that in those states and countries where preservatives are forbidden more deaths are caused by intestinal diseases than occurred before the food laws were passed and also that more deaths occur from these troubles than in states and countries which place no bar on preservatives in food.

Whether or not the issue will narrow down to the proposition as to which is the worse, preservatives or ptomaines, it is unfortunate that the National Food Law did not include poisonous food of this character in the provisions of the act. In the zeal of the framer of the law to protect a certain class of whisky known to contain a large amount of fusel oil the word "Added" was inserted in the clause defining adulteration making it read: "An article of food is considered adulterated in the case of food if it contains any *added* poisonous or other *added* deleterious ingredient which may render such article injurious to health.

The chief of the Bureau of Chemistry, whose duty is to make analyses to determine whether a food or drug is adulterated within the meaning of the act, is attempting to interpret the act to prevent the use of preservatives in food, but is powerless under a provision of the law framed to his order to condemn foods in which poisons have developed. The increase of ptomaine poisoning has been most pronounced since the National Pure Food Law was passed. While everyone must sympathize with the unfortunate victims of this variety of adulterated food, no doubt it will bring home to the food commissioners with considerable force one vital defect in the National Food Law.

THE BENZOATE BULLETIN.

Considerable adverse criticism of circular No. 39 of the Bureau of Chemistry, which condemns sodium benzoate as a food product, is going the rounds of the trade press. The comment does not indicate that the conclusions reached in this bulletin are necessarily incorrect, but that the entire experiment was conducted in an unscientific and spectacular manner and with not only preconceived and strongly expressed ideas as to the conclusion but every precaution in carrying out the test on the "poison squad" to make the results harmonize with the conclusions reached without the formality of an experiment. Then again many papers say that the publication of the document at this time when the entire matter of the harmfulness

or harmlessness of chemical preservatives has been left to a non-partisan commission of which Dr. Wiley is not even a member, is of questionable propriety and even an affront to President Roosevelt, who appointed the commission.

SCIENTIFIC

SIGNIFICANCE OF GASES FOUND IN SWOLLEN CANNED GOODS.

By F. O. Tonney, A. B., and J. B. Gooken, S. B., Chemists to the Department of Health, City of Chicago.

An article written by Mr. R. O. Brooks, an eastern chemist, was republished in the July number of the AMERICAN FOOD JOURNAL, from the American Grocer. This article criticizes our article of June, 1908, which appeared in the AMERICAN FOOD JOURNAL entitled "Analysis of Gases Contained in Swollen Canned Goods." We wish to thank Mr. Brooks for such of his criticisms as are scientific. The other general reflections which he casts we will not comment on; they speak for themselves, merely showing the spirit which prompted him to write them, and we leave them to the consideration of the reader.

The strongest criticism was directed against our statement that the significance of nitrogen found, "aside from small amounts due to the entrance of air lies in the fact that it may be considered a rough index of the amount of proteid decomposition which has taken place." We made this statement as a matter of opinion, based upon good authority, and strengthened by the fact that of the 63 results of analyses of swollen canned goods which we published, at least 52 show a higher content of nitrogen alone, than the total volume of original air commonly contained in unswollen canned food products. For instance, the 63 swollen cans which we tabulated contained over 100 c. c. of gas, and 52 of these contained between 10 and 90 per cent by volume of nitrogen, whereas, in unswollen canned products the amount of gas (air) is theoretically none and rarely if ever over 5 c. c. Whence then comes this excess of nitrogen? Whether or not it is liberated during the putrefaction proper, or is of post-putrefactive origin, does not invalidate our statement in as much as the original source must have been nitrogenous material within the air tight can.

Jules Riset as early as 1854 discovered that free nitrogen always is liberated from decomposing manure. Hüfner, Ohrenberg, Kellner and H. Immendorf since then have decided that the nitrogen found is derived from the reduction of nitrites and nitrates, i. e., is a post-putrefactive process rather than a putrefactive, the original source being in any case the same, e. g., the disorganized proteid material. In speaking of these researches Lafar who, Mr. Brooks says, vouches for his contention, makes the following somewhat guarded statement: "Although these discoveries may justify the conclusion that no free nitrogen is liberated during the putrefaction of albuminoids it must not, however, be assumed that the same also applies to the decomposition of manure in general under natural conditions." The subsequent paragraph, carefully overlooked by Mr. Brooks, goes on to state that "considerable quantities" of free nitrogen are liber-

ated, subsequent to putrefaction, from reduction of nitrites and nitrates. Speaking of the interaction of two putrefactive products, i. e., ammonium salts and nitrites, he says that N_2O_3 re-acts with ammonium salts and derivatives "to liberate both the nitrogen of the nitrite and that of the ammonium salts as well."

There is a difference of opinion to-day on these questions among bacteriologists and we do not think that these general statements of Lafar, even were they conflicting, with our conclusions based as they are on experiments with different substances under different conditions than those with which we are dealing, would have sufficient bearing on our investigation to warrant us to revise our conclusions. We are inclined, however, to consider them corroborative rather than conflicting, it being immaterial whether the nitrogen found be of putrefactive or post-putrefactive origin.

It is our opinion also, that the lines of demarkation between the stages of harmless putrefaction and dangerous putrefaction are not sharp enough to be de-

tached by the sense of smell. Our experience would indicate decidedly to the contrary.

We find that Mr. Brooks has in several instances misquoted and misinterpreted parts of the article in question. To be specific, the statement that the test for hydrogen sulphide was omitted is entirely erroneous. The sense in which the word ptomaines was used is misconstrued. The statement that "the real dangerous poisons, the proteid like toxins, etc." were not mentioned is untrue. The inferences that all such toxins are readily destroyed by heat, is not supported by authorities on the subject.

On the whole, after carefully reconsidering our paper with the aid of the criticisms mentioned, and after taking particular notice of the various points of difference brought to our attention, we are obliged to conclude that revision along the lines suggested would not be warranted by the facts of the analysis, nor consistent with the views of the best authorities on the theoretical problems involved. Therefore, we feel that the article must stand as originally written.

ADDRESSES DELIVERED

AT THE

Twelfth Annual Convention

OF THE

Association of State and National Food and Dairy Departments

At Mackinac Island, Michigan, August 4th to 7th, 1908

PRESIDENT LADDS' ADDRESS.

BY E. F. LADD.

Food Commissioner of North Dakota.

Members of the Association of State and National Food and Dairy Departments: For the twelfth time this association is meeting in annual convention to consider problems presented by another year's experience; to aid in formulating plans for pushing forward our work; in the creating of a correct public sentiment, as well as to aid in securing better state and national food and drug laws; and I congratulate you on the progress that has been made during the period of the existence of this association.

During the past six years there has been created a sentiment among the people for pure foods and truthful labeling, and we have seen marked improvement in the character of the foods, beverages and drugs furnished to the people of this country. Six years ago our preserves, jellies and jams were largely adulterated and misbranded, made from apple stock and waste fruit products, often containing starch paste and mucilage, colored with aniline dyes, preserved with salicylic acid, sweetened with glucose and saccharin and the whole falsely labeled. Our canned corn, almost without exception, was bleached with sulphites, preserved, and sweetened with the coal tar sugar—saccharin. Our peas and string beans frequently contained copper and alum salts and often contained chemical preservatives. Our meats were embalmed with chemicals, and some of the canned products contained little besides gristle, connective tissue and waste matters, seasoned and

flavored, but sold as potted ham, chicken, etc. Our sorghum syrup came largely from glucose factories, worth fifty cents a gallon and retailed for \$1.50. Our strained honey was largely flavored syrups and glucose. Our candies were made from glucose, containing sulphites, to which further sulphites were added, colored with coal tar colors, many of which were known to be harmful, and flavored with chemicals or synthetic flavors. Our whiskies, brandies and wines, most generally sold even in the drug stores, the good Lord only knows what they did contain, but our chemists have shown that they seldom contained real whiskey. Our cider vinegars were unknown to the apple family. Our spices were but a semblance of the real thing, made, as they were, from corn meal, cocoanut shells, olive stones and other waste products. Not a few of our drugs, drug preparations, extracts, etc., contained wood alcohol, known to be a deadly poison. Cereals and chicory were the basis of much ground coffee. Lemon and vanilla extracts were largely imitation products and put up with wood alcohol. Many of the preparations dispensed at the drug stores varied from 25 to 150 per cent of the U. S. P. strength; and fully 75 per cent of the patent medicines were fakes, pure and simple.

But why dwell upon this longer than to show what has been accomplished through the enactment of state laws and their enforcement. Today these conditions are largely changed. Pure foods, pure drugs of proper strength and truthful labeling are in a large measure being realized, and this association has done its full

share in making possible this changed condition and in creating the healthy public sentiment which has sprung up in all parts of our land.

I congratulate those pioneer members of this association, who are still with us today, for the noble work which they have done in laying so well the foundation that has made possible the realization of this most desirable condition. This association cannot, however much good it has accomplished in the past, rest upon the laurels already won, for the battle is not yet a victory to our forces. The enemy is still strongly organized and well entrenched, and there are always those who will drag down the true standards and deceive the people. Let us say, however, that many of the evils of the past were forced upon the manufacturers who would have preferred to deal honestly with their fellowmen, but the public were ignorant of the condition and could not, therefore, be expected to give assistance until a correct and healthy sentiment had been created.

In what I have to say today, I shall deal mainly with matters that have come under personal observation and with such suggested problems as call for some careful attention on the part of the members of our association.

EXECUTIVE SESSIONS.

The time has come when this body should, in my judgment, be more of a deliberative body than it has been in the past. To that end the executive committee have arranged that one-half of the time of the present convention be given to executive sessions. The morning sessions in general should be given up to deliberations of interest to the food commissioners and their chemists held in executive session. All discussions of papers should be in executive session when the fullest and freest expression may be had as to the best methods of dealing with important problems, and when real progress can be made in harmonizing the work under the many state laws. When thought desirable, competent individuals, not members of the association, could be invited to address the executive session or to discuss some features of papers already presented.

I recommend that one executive session be devoted to the outlining of forms of labels and rulings which shall be satisfactory to all those states that feel the time has come for such united work. If, at one of these sessions, we can but take one advanced step, great and permanent good has been attained. I recommend that the commissioners consider a few topics, as was done by the commissioners of the northwest at their St. Paul conference, and see how they can be harmonized under their several laws.

I desire also to recommend that the chemists hold at least one executive session, where they can freely discuss the different problems which are presented to them, and compare notes as to findings in the different states for particular products, and methods to be employed in dealing with them. I am sure some interesting developments await you if you but travel the proper field, and each will go back strengthened for future work and with a clearer idea of what your fellow-chemists are doing in their states.

SULPHURING OF FRUITS.

What shall be the attitude of our members toward the dried fruit problem, as it is now presented to us? Why should we consider it proper and permissible to sulphur dried fruits any more than meats, canned corn, wines and candy? It will be a very difficult matter to prove a preservative injurious in one food product and not in another. Why certain industries should

be favored by being permitted to use a preservative and others not, might be hard to comprehend. If we take steps to put a stop to the practice of sulphuring fruits, I maintain that in the end the industry will be immensely benefited and not harmed. The experiments carried on by the Department of Agriculture at Washington, D. C., have already demonstrated the deleterious effects upon the human system of sulphur dioxide, if such further demonstration was at all essential. Under the National Law it would seem that there could be no valid reason for longer permitting an evil which, at the present time, is more general than it was before the enactment of the National Law. Why should the officials of North Dakota, for instance, be expected to tolerate an abuse simply because the National Law is not being enforced where its terms are clear and unmistakable and the findings of the Government in harmony therewith?

That the sulphur compound in the fruits is wholly changed or driven off in cooking, as maintained by the advocates of this process, is not correct, and, like Glaubers and Epsom salts, they are not natural or desirable food adjuncts, even when taken in minute quantities. The necessity for sulphur bleaching of fruits, to my mind, does not always suggest good sanitary conditions in drying and caring for the fruit any more than the demand for the use of benzoate of soda indicates fresh, wholesome fruit in the preparation of the catsup. I hope the Association will give careful consideration to this matter, and formulate a course of action to be generally followed by the states.

ALUM AND ITS USES.

It is generally recognized that alum salts are not desirable food products, nor are they longer essential in the preparation of food products. It is true that the use of alum in the preparation of pickles does not make necessary as great care as where they are not employed, but the adoption of improved methods will enable us to get away from its use. The resolution passed by the St. Paul Conference of Northwestern Commissioners expresses the general sentiment as follows:

"RESOLVED, That the use of alum or any other aluminum compound in prepared fruits, vegetables and condiments is injurious to health and unnecessary, and should be prohibited."

Since it is essential that the way be paved to make ready for changed conditions, I recommend that the educational work at least be now begun, and the use of aluminum salts not permitted in peas, beans and like products, and, after the present year, prohibited in the preparation of pickles or any other food product.

NET WEIGHTS AND MEASURE.

Says Commissioner Slater: "Undoubtedly, the greatest fraud now being perpetrated in the sale of food stuffs in this state (Minnesota), as well as in nearly all other states in the Union, is the short weight and short measure fraud."

Unfortunately, the wording of the National Food Law has encouraged this kind of fraud. It may almost be said to have placed a premium upon this type of fraud by inducing the manufacturers to prepare and place upon the market goods to be sold by the package, rather than by the pound. In ninety per cent of such cases, these special packages have been prepared for no other purpose than to aid in continuing the perpetration of fraud of too long standing, but which has now been made to take a new form.

Raisins and currants are being put up in packages

and sold as such, presumed by the purchaser to contain one pound, when, in reality, they contain from 11 to 14 ounces. Oysters, put up in cans, supposed to contain and are sold for one quart, have been found to contain actually 1/6 of a gallon. Here the consumer purchases, as he supposes, a one-quart can for which he pays 35 cents; in reality, he is paying at the rate of 52½ cents, since it requires six of these quarts to make a gallon. Therefore, the profit to the dealer on this short weight alone is 21 per cent. Let us take, for example, another case, that of a carload of canned strawberries shipped to Fargo during the past year, labeled "First Quality—for family use." They were in reality slops, since the can contained but 2½ ounces of strawberries, which did not pass through cheese cloth, and 19 ounces of water. Why should the people pay freight on this much of water from Baltimore to Fargo, and why should they not know the true weight and grade?

I care not what the canner may assert, I charge that in off years of light crop or of high prices there are those who slack fill their cans and add more water; while, in years of plenty and low prices, they fill their cans full of food material. There are packers of food products who change the size of their special can to meet their needs. What harm comes if they are honest and there is no fraud practiced in printing on the labels the true weight and grade for the benefit of the public? Why should a man get six quarts of whisky or oysters out of a gallon; or, why should 3½ ounces of spices be sold at the same price along beside a standard 4-ounce container; or, 1½ ounces of lemon extract in a 2-ounce carton; why should the people be short-weighted and measured simply because, as a compromise measure, the national law permits of fraud to be practiced with this class of food products? It is said that one of the trusts, most strongly opposing this provision, originally in the national food law when before the committee of Congress, have during the past two years removed but a single count from one of their well known packages, and that their enormous business saved the company \$100,000. Should the people not know of this condition? When lard is sold for 5 pounds and the pail contains but 4½ pounds, a fraud is committed and intentional deception practiced. Every container should not only show the true net weight, but these should be standard weights and measures for all such products generally sold by the pound, quart, gallon, bushel, etc. Such cases as I have mentioned are too common to make it necessary for me to go deeper into details.

DATE OF THE CAN.

There has been considerable discussion of late as to whether package and canned goods should be made to show the date when they were put up. I believe that every tin container and every sealed package should be made to show the date when the same was put up, and, in the case of canned goods, this should be indented in the tin cap itself. Such a measure would protect the people against fraud, not always practiced by the manufacturer, but more often by the commission brokerage concerns, who purchase and relabel goods, some times five years or more in age, and sell as fresh products under a new brand and label. A measure of this kind would instead of being detrimental to the retailer, benefit him by insuring freshness of stock and prevent the loading up of old stock. Fresh goods should command a premium over stale goods or old goods car-

ried over a length of time; and the people have a right to know that this is the condition.

BLEACHED FLOUR.

One year ago I spoke before this association on the subject of bleached flour. A year's additional experience has convinced me that this evil is one that should be considered by this association. It is an evil not confined to any one part of the country and, therefore, is of interest to the consumers in every part of the Union.

The process of flour bleaching carried on by the use of nitrogen peroxide is a chemical process and not any part of the milling process. It is not, as is claimed, an "aging process," but it is practiced for the purposes of deception and fraud; and the ingredient used to bring about the change is an active chemical that causes changes to take place in the oil; renders the flour and bread, made therefrom, less digestible and less nutritious; destroys its characteristic sweet and nutty flavor, so much sought for, until the bread produced from such flour at the present time is far from what it should be.

Bearing on this point the editor of the American Grocer recently said editorially:

"It is said that ninety per cent of the flour milled is bleached, or, as some designate it, 'aged,' by a chemical process. The excuse is that the people demand white bread. We doubt it. Consumers want sweet, nutty bread, of natural color, and they fail to get it because the flour of to-day is lacking in flavor. We do not know why, but we do know that appetizing bread is scarce; that the art of home-made bread making is on the decline. Whether bleaching the flour, which naturally comes through age, is in part responsible or not, we cannot say."

I trust that the members of our association may take steps at this meeting which will discountenance the further practice of the process of bleaching.

STANDARDS COMMITTEE.

One of the most important matters for the consideration of this association at the present time is the work of the standards committee. As far as possible, this work should be done in collaboration with a similar committee from the Association of Official Agricultural Chemists. Our own committee, in order that its work may have the widest influence, should be enlarged, and the work apportioned to sub-committees. The establishment of standards for foods, beverages and drug products, not official at the present time, should be carried forward to completion as rapidly as possible. Such standards, when once adopted by the association, should be made official in the several states by incorporating the same in our state laws. Thus rendering it easier for successful prosecution in violation of the laws, and, at the same time, it would serve as a means of informing the manufacturer of the requirements, which would then be uniform for all states.

In order to insure success, these standards must be uniform for the several states, but they need not necessarily take into consideration the requirements under the present national law, which is being enforced more as a label, rather than as a food law. The fact that a state law specifically enumerates certain harmful ingredients not to be used in foods, such, for example, as formaldehyde, salicylic acid, sulphurous acid, saccharin, anilin dyes, etc., makes it easier of enforcement than when we must go into courts in opposition to those who care little for the welfare of the people.

and who frequently employ professional experts ready to sell their service to either side of any cause.

FOOD JOURNAL.

In my judgment the time has come when it is most essential for the future welfare of this association and the cause we represent that we have our own official organ—a journal published by and under the control of the association. At first, it may be published bi-monthly, or even as a quarterly. It should have a strong corps of editors and associates, and should not accept advertising from manufacturers of food products, beverages, etc. Such an organ, to be a success, should have the loyal support of every state food official and should give not only the papers and proceedings of this association, but should keep in touch with all food work in this country and abroad. Only by the means of such a journal shall we be able to place officially before the people information and the policy of the several food departments in a way which will be effective in counteracting in some measure the misleading statements that are being sent out by the interests.

Like the British Food Journal, I believe such an organ would soon become recognized as an authority on food matters and be largely subscribed for by the general public. Gentlemen, I recommend this matter for your careful consideration in executive session.

MEMBERSHIP FEE.

The work of the association cannot be carried forward successfully without some method of financing it. This matter should be carefully considered and some means devised so as to insure a reasonable income. It has been suggested that an annual membership fee be fixed for each state and, if necessary, to so amend the constitution as to make this possible. The association should, in my judgment, have at the present time an assured income of not less than \$500 per year in order to properly carry forward the work devolving upon it.

UNIFORMITY OF FOOD LAWS.

I believe in uniformity of state food laws, and to that end it seems to me that the association should promptly take action to have a committee appointed to prepare a general food law adapted to meet the wants of all states. Local conditions will then make supplementary laws necessary, in order to correct local and temporary evils. A good general food and drug law, one that prohibits by name the recognized harmful ingredients, accepting the standards established by the association as official, would harmonize many differences at present in existence; strengthen our position with the people; make our laws easier of enforcement; disarm food adulterators and their political constituency of the last vestige of fighting ground; and bring protection to the honest manufacturer.

Let us see if we cannot make some advance in this direction; let us have a committee and set them to work to bring about the drafting of an ideal measure that will be satisfactory to all of the states and then gradually secure its adoption by the states enacting new food laws, the same as has been done in connection with the fertilizer laws of the country. Such a law should carry with it a general form for labeling, somewhat after the manner as outlined by the Commissioners of the Northwest at their St. Paul conference.

SANITARY LAW.

One year ago this association passed the following resolution:

“RESOLVED, That sanitary inspection should be extended to include small slaughter-houses, small poultry and killing-houses, creameries, cheese factories, dairy farms, milk depots, ice cream factories, restaurants, hotels, groceries and meat markets, and all other places where food is produced, manufactured, stored, or offered for sale, and that such inspection should include the sanitary condition of the buildings and utensils, herds, workmen and their clothing, and the condition of the raw material and the finished product.”

I suggest that if we would have uniformity we should at once take steps to prepare a bill that meets the approval of the association to be generally recommended to the several states, and to this end we should appoint a committee to draft a bill to be presented for consideration at the next annual meeting of our association. In my judgment the time has come when sanitary inspection should be made a part of the work of these departments, and that the first essential to secure pure foods is that we see that the conditions where the products are being manufactured are sanitary and safe for the manufacture of wholesome food products. If one should visit some of the factories and workshops of the country and see where products are now being prepared and under what conditions, there would be but little demand for the products of some of these factories.

FOOD PRESERVATIVES.

The question with regard to the use of chemical preservatives in our food products is an important one deserving of the most careful consideration at the hands of this association. This is especially true regarding the use of benzoate of soda in catsup, pickles, beverages, preserves, fruit butters, etc.; and of sulphur dioxide and sulphites in canned corn, wine, ciders, meats, dried fruits, etc.

I do not think we need bring forth any further evidence of the deleterious effects arising from the use of these products continuously in our foods even though they be present in small quantities; nor, is it permissible to use either in foods or beverages. chemicals, the effects of which upon the system are not well understood; products which, if harmful, used continuously but in minute quantities can produce injury only after a long period of time. They are not food products or condiments; they are active remedial agents—drugs; and as such should only be prescribed by competent physicians. Then, has the manufacturer or producer of foods either a legal or moral right to introduce, unknown to the public, an active chemical into the food until it has been proven perfectly harmless. or that it does no injury or in any way lessens the food value, and that fraud in its use is not thereby abetted?

Ignoring, however, the injury to health that may arise from the continued use of preservatives, we may still assert that there is no necessity for their employment in the preparation of foods. It was formerly claimed, for example, that catsups could not be put up successfully without the use of benzoate of soda. This has been fully disproven during the past two years. North Dakota has several brands generally sold in the state that are free from any preservative, and there is no complaint of failure to keep. On the other hand, there is an increase in the demand for this class of products; in fact, their keeping quality has been found to be better than that of most of the catsups formerly on the market, while the quality is vastly superior. This we should expect to be the case, for catsup without preservatives must be made from fresh material

and under sanitary conditions, neither of which have been common in the catsup manufacture as ordinarily practiced. I maintain that there is no sound reason for permitting the use of either benzoate of soda, salicylic acid, borate, sulphurous acid, formaldehyde, nitrous acid or saccharin in the preparation of any food product; that, not only tomato catsup, but even fruit-butters, mince-meat and bulk pickles may be and are being prepared and placed upon the market without containing a preservative. In all these matters we have not only to deal with the preservative as to its detrimental effects upon the health, but also the undesirable conditions about a manufacturing plant which their use makes possible. It is through the use of preservatives that it is made possible that decayed raw material can be made into apparently palatable food. By their use bad color and odor can be overcome, and the consumer can be easily deceived.

A claim has been made that if preservatives are ruled out, a great many foods, now on the market, would disappear. This has been repeatedly disproven, even by the reports of the government on importations, which show that every article, heretofore containing preservatives and shipped into the states from abroad, now comes without preservatives and even of better quality than formerly. In my judgment, if preservatives are completely ruled out, every article of food that is on the market to-day will still be on the market, and in the majority of cases will be of better quality and made of better raw material. The enforcement of laws against the use of preservatives will benefit every honest manufacturer; it will tend to create a greater demand for prepared food products; it will necessitate their being prepared in a fresh condition, and we all know that freshness is the first essential in the preparation of a good food product.

Why should it be expected that the grocer should carry on his shelves for years, or even months, perishable articles of foods, heretofore embalmed for preservation, any more than he carries such articles as breads, meats and vegetables for an indefinite period. Of these products he is careful not to purchase an over-stock, or more than he can sell within the time allowed for them to remain fresh.

It is not assumption, but a well-established fact, that all chemical preservatives retard digestion and in general produce other physiological conditions prejudicial to good health. In some instances, however, the concrete evidence essential for the successful prosecution of cases for the violation of the food law, where preservatives are used, is lacking in a form that can be well employed when, as in the past, the burden of proof is thrown upon the prosecuting officer. We have depended upon the investigations conducted by the Department of Agriculture for the evidence which shall determine whether these products are to be classed as harmful ingredients or not. The investigations carried on by the Department of Agriculture, with regard to the use of benzoic acid and its derivatives, have for a long time been completed. It is unfortunate that they were not earlier published. No matter what the findings are, the public are entitled to know the results; and our state authorities, endeavoring to harmonize their work and their laws with that of the national authorities, are left in an unpleasant situation, much to be regretted. What influence is there which should make possible such a condition as would be indicated? Is it another case of where "special interests" have brought to bear their influence in checking

the proper enforcement of our state and national food laws?

Mr. Cannon, at a time when he was representing the people in Congress, is reported to have said: "These special interests never slept. You may head them off in one place, and away off on the other side they dodge up again." It is possible that some such influence may still be at work.

NATIONAL AND STATE LAWS.

The national food and drug law was made possible only by the efforts put forth by our state food authorities working as a harmonious body to better the condition of the American people by insuring to them wholesome and pure foods. Such a national law was originally intended to strengthen and supplement our state laws and thus to furnish protection to the honest manufacturer, as well as to the consuming public. This would insure not only a full dinner-pail to the workingman, concerning which we have heard so much during the past few years, but it would insure that his pail was filled with real food, not embalmed, indigestible gristle, chemically preserved meats, fruits and beverages, electrocuted flour, coal tar flavors, colors and sugars without any nutritive value, and indigestible, in-nutritious foods to undermine his health and at the same time his usefulness in middle life. Let us aid, therefore, by the proper enforcement of these laws in giving the workingman a full dinner-pail of *real food*.

Physicians in North Dakota have assured me that since the enforcement of the pure food law against the use of sulphites and other preservatives in meats, canned corn, candy, etc., that there has been a marked decrease in certain types of stomach troubles, as previously manifested in office practice. There can be no better evidence of the need for food laws and their proper enforcement. To make these laws fully effective there should be the fullest co-operation between the state and national authorities. President Roosevelt, in his message to Congress, has well said:

"Incidentally, in the passage of the pure food law the action of the various state food and dairy commissioners showed in striking fashion how much good for the whole people results from the hearty co-operation of the federal and state officials in securing a given reform. It is primarily to the action of these state commissioners that we owe the enactment of this law, for they aroused the people, first to demand the enactment and enforcement of state laws on the subject, and then the enactment of the federal law without which the state laws were largely ineffective. There must be the closest co-operation between the national and state governments in administering these laws."

Never were words more truly uttered than these, and how much could be accomplished were the national law left for its enforcement to an unhampered, liberal-minded, and fearless man, like Dr. Harvey W. Wiley. Then, food adulterators and special interests would respect and obey the mandates of the law, but, when there stands between him and the interests specially constituted boards of doubtful constitutionality, how can we hope for co-operation such as the president calls for. We should not, however, forget the good work that the secretary has done for the cause of agriculture, but direct our criticisms to the workings under the food law where, no doubt, enormous political pressure has been brought to bear; and those of us who have been long in the work know only too well the plausible and ingenious type of falsehoods that are made use of by representatives of food inter-

ests to accomplish their purpose of deception. The secretary may have been misled by some of the advisors and representatives who have taken advantage of the fact that he cannot be expected to be familiar with the real conditions that make for the highest success in the enforcement of a new national food and drug law.

Gentlemen, the secretary of agriculture, it would seem, does not want co-operation of state and national authorities in the establishment of standards, while our association has conscientiously endeavored to bring about such co-operation as would be to the best interests of the people and as indicated by President Roosevelt in his message. This is clearly shown by the resolutions passed by this association at its annual convention one year ago at Jamestown, as follows:

"RESOLVED, That this association reiterates the necessity for closest co-operation between the state and national government in the enforcement of pure food laws, to the end that a system of legislation enacted in the states under their police powers, and by the national Congress under power given to regulate interstate commerce, shall not come into conflict, and to that end that the joint knowledge and experience of state and federal officials may be brought to bear in the consideration of the many technical and practical questions arising in the enforcement of food laws.

"RESOLVED, That the existing unity of sentiment, purpose, and efforts between the state and national authorities meets our approval and is cause for felicitation, and we bespeak the continuance of this hearty co-operation as mutually advantageous. And, RESOLVED, further, that we strongly favor such uniformity in national and state food laws as can be made to comprise the strongest and most vigorous features of present state and national laws enacted for the purpose and with the effect of protecting the consuming public against adulteration and fraud, and without imposing any hardship on the trade not necessary to the accomplishment of that purpose; but we as strongly oppose that uniformity in national and state food laws which comes only to relieve the trade from hardship by writing into those laws the weakest and least effective features of present laws, and 'such cunning ingenuity' that while bearing a fair countenance, they carry the elements of disaster in the courts and to the consuming public."

It has been recognized that the common ground on which state and national laws can best meet for their harmonious enforcement is through the establishment of proper standards which would serve as a guide for both state and national authorities, prove an aid to the courts, and enable honest manufacturers to meet the demands of the several food laws. Such standards when well established should become a part of our state pure food codes. The value of these standards has already been clearly recognized by all who have had to do with the enforcement of law, or even with the chemical problems connected with the same. The establishment of standards is what the food adulterators and special interests fight against, for, with established standards once in force the food adulterator's days are numbered; the honest producer comes to his own; and the people receive what they order and pay for.

The secretary of agriculture apparently observing that such standards, when the work had been partially completed, were not pleasing to the special interests, seems to have succumbed to the pressure brought to

bear, and, unfortunately, even aided in nullifying the work. In the senate committee his official representative urged the cutting out of the appropriation intended for carrying on the work of standardization on the ground that the secretary had been given full authority under the food and drug act to continue the work and to utilize the committees then engaged in preparing standards.

Before the committee of the senate of agriculture. Mr. Galloway, representing himself or acting for and at the request of the secretary of agriculture, secured the striking out of the appropriation and authorization to enable the continuation of the work of preparing standards, saying to the committee that he, the secretary, had full authority and the means for carrying on his standards work without this provision. Senator Proctor, believing in the work of preparing such standards, then said:

"If anything could convince me that we ought to adopt standards, it would be the nature of the objections that were raised in committee. The representatives of blended whisky and neutral whisky were particularly active with the lawyer here."

But the request of the secretary was granted, and it is evident that there were lobbyists influential enough to put an end to the official work of the Department of Agriculture in the preparation of standards. Later, as a member of a committee of food officials and citizens to visit Washington to aid in securing co-operation of the department, the secretary stated that Congress had taken from him the power to co-operate in the further preparations of standards when Congress, through its committee, did just what the secretary through his representative asked to have done. When his attention was called to the fact that he had stated that he had full authority to continue this work, and that it was not a matter of financing the proposition, the secretary insisted that the department could do nothing, for it would be unlawful for the government to employ men without pay. Was there then any willingness manifested by the secretary to co-operate? Far from it.

An effort was made somewhat later to secure a conference of state and national food authorities at Washington with the consent and co-operation of the secretary of agriculture. But this did not meet with favor from that quarter. It should also be noted that the "special interests," through the efforts of Congressman Tawney, took special pains to prevent successful co-operation between the state and national authorities in the enforcement of the law. Nevertheless, shortly after attempts were made to secure co-operation at the request of some food adulterators and their attorneys, piloted, it is said, to the official circle by one of the representatives of Congress, who has long been an opponent of stringent food laws, and is reported to have insisted that he would use saccharin even after it had been tabooed by the federal food department and practically all other packers had abandoned it, there was appointed a committee of five. Is there harmony in this? Whose cause was being served, the people's or the interests acting at the request of those interested in misbranding and adulterating the foods, drugs and beverages of the people? If there were any valid reason why it would not be for the best interest of the cause of pure foods to contain co-operation no such intimation was ever made, and the men, whose efforts made possible the enactment of the law, as indicated by President Roosevelt, were not entrusted

with the information. It was not the honest manufacturer who was asking for this recognition. The man who manufactures and honestly labels his goods has nothing to fear, but everything to gain by the enforcement of a pure food and drug law. It is to be deplored that our food and drug laws are being dragged into politics and that statesmen will aid such interests and then expect the people to have confidence in them. Will the food interests and honesty of our country be promoted by the election of such men to position of power?

Says the Commercial Bulletin:

"Just at present there is a reactionary movement in national administration of the pure food law, which if not checked may go far toward undoing the beneficial results of congressional enactment. This movement started only a few months ago may be partly the outcome of the belief that this is an unfortunate year in which to antagonize manufacturers who are desirous of continuing their familiar processes."

Let us commend and sustain the able, fearless and honest work undertaken by Dr. Wiley in the enforcement of the food and drug law, but let us not be misled by those who prefer to follow the dictates of the "special interests," rather than the will of the people.

Gentlemen of the association, after one year's experience we must conclude that there can be no official co-operation between state and national authorities in the preparation of standards as a common basis for action.

There are too great differences between the better elements of our state laws and national law to make it desirable to bring our state laws into harmony with the national law under existing conditions. Or, as Commissioner Emery has well said:

"I am opposed to that uniformity in national and state laws which comes only to relieve the trade from hardship, by writing into those laws the weakest and least effective features of present laws. If there is a serious desire to enact and enforce effective food laws for the purpose of protecting the consuming public against adulterated and fraudulent foods, let us not hasten to inject into existing state laws, either by amendments or re-enactments any of the weaker or defective features of the national law under the clamor for uniformity. When uniformity comes let it be upon a higher and not upon a lower plane of protection for the consumers."

THE PRESENT LEGAL STATUS OF OLEOMARGARINE IN WISCONSIN AS DETERMINED BY THE SUPREME COURT.

BY J. Q. EMERY.

Dairy and Food Commissioner of Wisconsin.

One section of the Wisconsin oleomargarine statute provides that any person who "shall by himself, his agent or servant, render or manufacture, sell or solicit or accept orders for, ship, consign, offer or expose for sale, or have in possession with intent to sell, any article, product or compound made wholly or partially out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, and without the admixture or addition of any fat foreign to said milk or cream, which shall be imitation of yellow butter, produced from such milk or cream, with or without coloring matter," shall be punished as therein prescribed. "Nothing in this section shall be construed to prohibit the manufacture or sale of oleomargarine in a separate

and distinct form and in such manner as will advise the consumer of its real character and free from coloration or ingredient that causes it to look like butter."

To the ordinary dealer, as well as to those who were interested in framing the bill and securing its passage, its meaning seems plain and unambiguous; but a law in Wisconsin, as well as in every other state, is not necessarily what the framer of the law intended it to be, but means just what the supreme court, or the court of highest appeal, says it means. It was interpreted by the dairy and food commissioner to mean that the sale of oleomargarine, which in its color could be taken for yellow butter, is prohibited. It seems to have served the purpose of manufacturers of oleomargarine to challenge this view of the meaning of the statute.

A decision of the Wisconsin supreme court was handed down on January 8, in a case involving the interpretation of the law we are considering. The case was brought against Meyer and Nowack of Watertown for selling a compound, described in the terms of the statute and as in "imitation of yellow butter." The defendants were examined in justice court and were held for trial in the circuit of Jefferson county before Judge Grimm. The case was tried in February, 1907. The defendants were found guilty and fined \$50 and costs. An appeal was taken to the supreme court and the decision of that court was rendered January 8.

The limitations of time preclude any detailed description of the trial of that case in the circuit court of Jefferson county; but to understand the present legal status of oleomargarine in Wisconsin a knowledge of some features of that trial is absolutely necessary.

The professed theory of the oleomargarine manufacturers and of their legal representatives was that the law must be so construed that if oleomargarine contained no artificial coloring its sale was not in violation of the law, however yellow it might be. One of the witnesses for the oleomargarine manufacturers was reckless enough to swear in a former case brought in another judicial circuit, that oleomargarine of necessity varied in color with the change of the seasons, just as the natural color of butter changes with the change of the seasons, and also that if the law were construed to prohibit the sale of oleomargarine of the color of yellow butter, the law thus construed would be prohibitive of the manufacture of oleomargarine during some seasons of the year. He further testified that the oleo oil is obtained from grass-fed animals in the fall of the year; and that grass-fed animals yield a yellower oleo oil than grain-fed animals; that unartificially colored June butter is purchased for use in manufacturing oleomargarine; that these products thus obtained are held for the manufacture of oleomargarine at different seasons of the year. It is interesting to note how completely this last statement controverts his previous statement, that the color of oleomargarine changes of necessity with the change of seasons, like butter. But when the business manager of the same firm swore that his firm was able to manufacture and meet at all times of the year the demand for the "Bakers' Brand" of oleomargarine, which was only another way to describe oleomargarine whose "natural color" is not yellow but practically white, the statement of the first witness that the color of oleomargarine changes of necessity with the seasons, or a like statement by any one else, was completely refuted.

Being forewarned by such remarkable testimony,

the dairy and food commission, in the case of the State vs. Meyer and Nowack, made investigations as to how the yellow color in the oleomargarine is produced. We purchased tallow from different butchers from grass-fed animals and from grain-fed animals as well. We manufactured oleo oils from the samples of beef tallow we had purchased, and neutral lard from the leaf lard purchased. We were enabled to produce from a reliable source samples of different kinds of oleo oils ranging in color from white to a golden yellow; three distinct, different grades in all in relation to color. Practically white oleo oil is manufactured from the best grades of grain-fed beef cattle, and is the best quality of oleo oil. Dark yellow oleo oil is manufactured from old cows, grass-fed cattle, etc., and in quality is the poorest grade of oil. There are intermediate grades of oleo oil based upon color between these two.

In the Jefferson county case, the manager of the oleomargarine department of the concern that manufactured the oleomargarine in the case swore that the quality of oleo oil varies as the quality of beef varies; that where the beef is poor the oleo oil is poor also. He passed the light colored as the best grade and put the higher colored oil on a lower grade.

In this connection it should be recalled that while grain-fed animals produce the lighter colored oleo oil and grass-fed animals yield yellower oleo oil, he was forced to testify that though inferior in quality, yellow oleo oil sold at as high a price as the white, and the oleomargarine made from the yellow oleo oil sold as high as that made from the white. The conclusion from which testimony plainly is that the yellow color of oleo oil confessed by them to be inferior in quality enables them to sell oleomargarine made from it at the same price as that which they receive for the oleomargarine made from the white oleo oil, which they claimed is of a better quality. Their altruism for the "poor man" naturally suspends its function at this point. The fact was established in these trials that although manufactured from material that is purchased when prices are the lowest, this material is held and manufactured into oleomargarine and sold at prices that follow with striking precision the soaring prices of butter—another case of naturally suspended altruism.

The same witness in the Jefferson county case testified under oath that the sample of oleomargarine, for the sale of which the suit was brought, when presented to him in the original wrapper and fully labeled, did not look to him like butter; but when afterwards a little pat out of that self same sample of oleomargarine was presented to him with five other pats of butter or oleomargarine, on little plates as served on the table, and he had no label to help him to decide what it was, he swore that it looked to be like very light colored butter.

The testimony of this expert of the oleomargarine people completely refutes the statement of Mrs. Abel in one of her Delinator articles that persons familiar with choice creamery butter cannot be deceived into taking oleomargarine for creamery butter. Creamery butter experts know Mrs. Abel's statement to be untrue as they cannot themselves with certainty discriminate between the two.

From the evidence submitted in these cases and the investigation made by the state in preparation for these cases, it is clear that oleomargarine can be made as yellow as many shades of yellow butter by carefully selecting yellow oleo oils and cottonseed oils;

that oleomargarine can also be made that is free from coloration or ingredient that causes it to look like yellow butter, and the contention that the natural color of oleomargarine is the color of yellow butter is as fraudulent as is the oleomargarine which is made in imitation of yellow butter. In the course of our investigation we learned that the packing house people ship to Europe large quantities of the white oleo oil and retain the yellow oleo oil for their own use in this country in the manufacture of oleomargarine. This throws not a little light on the significance of their contention as to the "natural color" of their product. Color that is produced by crafty selection and manipulation of materials is not a natural color.

Dr. Richard Fischer, chemist for the dairy and food commission, commonly called state chemist, was able to establish the fact that the oleomargarine in question was produced by the use of about 65 per cent of very yellow oleo oil, 20 per cent of neutral lard which is practically white and 15 per cent of cottonseed oil. He was able to establish by his testimony that the yellow color of the oleomargarine in question, which was in resemblance to yellow butter, was secured through the selection of the darkest shades of yellow oleo oil, of which a very high percentage was used.

In its decision, the supreme court of Wisconsin, holds that the sale of oleomargarine "which shall in imitation of yellow butter" is prohibited by the statute. It holds that the words "yellow butter" require no definition to explain their meaning; that they define themselves and are used in the statute in the popular, rather than in any trade or technical sense. It holds that whether the prohibited product is in imitation of yellow butter is a question of fact, to be determined by the jury and that the article is to be compared with yellow butter by direct testimony of any person who is able to testify on the subject, which will include all ordinary witnesses except those who show affirmatively their lack of knowledge or some degree of color blindness.

The court says that the question whether the article sold by the defendants was the identical thing which is contraband by the statute must be determined by the testimony of witnesses who have seen it, or by the testimony of witnesses aided by inspection of the article itself, and that its resemblance to yellow butter is a factor in such determination. If the article is in imitation of yellow butter, it matters not whether such imitation is brought about by the addition of a dye or by the selection of ingredients. The court declares that there is no distinction so far as producing color is concerned between imitating or producing color by the addition of an ingredient known as a dye, added for the purpose alone of producing a given color, and the selection and addition of an ingredient which performs the same coloring function, but at the same time adds other qualities to the compound.

The court holds that the words "which shall be in imitation of" used in describing the contraband compound, imply a conscious imitation in the manufacture thereof. The court explains the meaning of conscious imitation as follows: "If one forming a compound of several ingredients knowingly select and use an ingredient which imparts to the compound the color of yellow butter, he having choice of ingredients, he will have made his compound in imitation of yellow butter just as well as if he selected a dye." "There is, however, this difference, viz., proof of the presence of the dye, which can have no other function than that of

producing color, showing the conscious imitation quite clearly, while proof of the selection of the ingredients which produced the color of yellow butter, the person selecting having the choice of ingredients, is a fact from which the jury is authorized to infer a conscious imitation notwithstanding the ingredient so selected has other qualities or is in one of its forms or in one of its colors a necessary ingredient of oleomargarine. Whether or not the article in question is in imitation of yellow butter cannot be determined alone by its resemblance to yellow butter, but resemblance aided by evidence and of the existence of other available ingredients which will impart to the compound the color of yellow butter the existence of a dye as one of its ingredients, or resemblance aided by evidence of the existence of available necessary ingredients which will not impart to the compound the color of yellow butter, may be considered by the jury as establishing or tending to establish conscious imitation by the selection of ingredients. What is yellow butter and whether the article in question is in imitation of yellow butter are question of fact."

The supreme court expressed the opinion that there was evidence before the trial court from which the jury was authorized to infer conscious imitation in the manufacture of the compound as described in its decision and because there was evidence tending to show that the accused had knowledge that the compound in which they were dealing was not butter but oleomargarine and that it resembled yellow butter.

The court further says: "Resemblance to yellow butter, together with knowledge that the compound is not butter, with proof of the fact of selling, shipping, etc., will constitute a *prima facie* case." But, says the court, it will be necessary to cover by the proof both branches of the inquiry as set forth in the decision.

The contention of the oleomargarine people has been that unless the compound contained an artificial color described by the court as "a dye," there was no imitation, but our supreme court holds that the selection of material is just as much a conscious imitation as the use of artificial color. And let me repeat again that the court held that there was evidence before the trial court warranting the jury to infer a conscious imitation; that is to say we offered evidence warranting the jury to infer the selection of material. The offering of this evidence was strenuously objected to by the oleomargarine people and an exception was made, but the supreme court overruled their contention and held that the evidence was properly admitted.

Because of certain irrelevant testimony that was admitted despite objection and because of one instruction of the trial judge to the jury, held to be error, to the effect that the lightest shades of natural butter as well as the darkest shades of colored or uncolored yellow butter and all intermediate shades were protected by the statute, the case was remanded for a new trial. The attorney for the oleomargarine people has informed me that the defendants in the case will before, or at the next term of the circuit court for Jefferson county, appear and "confess that they did it and pay their fine." That is to be the ending of the Meyer and Nowack case, according to the statement of their attorney.

Wisconsin was the first state to enact a law to regulate the sale of oleomargarine. In all the years that have intervened, the struggle has been to compel it to look like itself and not like butter, and to be sold for what it actually is and to prevent it from entering

the dining room or hotel, restaurant or boarding house "with its deceitful bow and brazen smile, claiming that its name is butter."

The enforcement of the national meat inspection law in its application to oleomargarine will aid in this work. Why do the packers, if not wishing to conceal the origin of their product, so strenuously strive to associate with the dairy, which is not its origin, instead of with the packing house, which is its true origin? Why, instead of a label with Jersey brand or Holstein brand or Guernsey brand, country rolls, etc., do they not use the picture of a packing house, which would suggest more truthful associations? Why not employ such terms as Polled Angus or Hereford or Berkshire or Polland China? If they must use the word Jersey, why not Duroc Jersey? Did not the oleomargarine manufacturers while the oleomargarine bill was pending in congress try to delude beef producers and cotton seed oil producers into the belief that if the bill became a law it would perceptibly lessen the demand for their products and lower the prices of the same? Why should they so shamefully forget these interests when they prepare labels for their products? Our experience is that the use of dairy products in the manufacture of oleomargarine is relatively in homeopathic quantities.

The Wisconsin oleomargarine law is a more vigorous law than the national oleomargarine law. It illustrates what will be found true, that in the enactment and enforcement of strong and effective food laws, the states will have to continue in the future as they have in the past to take the lead.

If the working man wishes to invest his hard-earned dollar in butter he should be sure to get butter for that dollar; and if he wishes to invest it in oleomargarine, he should be sure to get oleomargarine at oleomargarine prices and not at the price of butter. That is what he can do in Wisconsin today because of her oleomargarine law and its enforcement.

ENFORCEMENT OF FOOD AND DRUG LAWS.

BY R. W. DUNLAP.

Ohio Dairy and Food Commissioner.

To procure the enactment of food and drug laws is not as difficult a task as is their enforcement. To protect the health and pocket-book of the consumer and at the same time cause no great or unnecessary hardship to the manufacturer, jobber or retailer is the problem to be solved by those charged with the enforcement of such laws. To state that this is no easy task is merely to recall a fact with which you are all familiar. How these laws can best be enforced with the least possible friction is a matter in which the new commissioner and perhaps others are deeply concerned.

During my short experience as commissioner many obstacles have been encountered, some of which have been overcome while others are still in the way. In this paper I will mention a few of these difficulties, state how some of them have been overcome, and suggest what might be done to overcome others, in the hope that what is said may bring forth discussion that will benefit all.

The first hindrance to the enforcement of food and drug laws to which attention will be called is the lack of uniformity between the laws of the different states, and between those of the states and the federal government. Owing to the varied conditions throughout

the United States and the wide difference of opinion as to what these laws should be, how they should be enforced, and who should enforce them, the various law-making bodies will probably never get entirely together and enact absolutely uniform laws. However, I believe it is possible to secure uniform laws on some subjects, and also to come nearer uniformity on all than at present. It is not meant by this that the state should necessarily make their laws conform to the Federal Law. It is generally conceded that some of the states now have laws in many respects superior to the Federal. Where such a fortunate condition exists, let us not lower the standard of state laws, but unite in an effort to raise the standard of the Federal Law. There is no reason why the state departments should not co-operate with the federal in the enforcement of food and drug laws and also in securing laws which will be effective, satisfactory and more nearly uniform.

The enactment into law of fair, well-defined standards would greatly aid in the accomplishment of this result. Rulings are sometimes made by commissioners which some manufacturers and dealers, at a great cost to themselves, may accept as law. Later these rulings are found by the courts not to be a true interpretation of the law, and those who have accepted them and complied with the same, lose faith in all such rulings. It would require but few mistakes of this character to greatly weaken the department and increase the difficulties of enforcement of all food laws. Would it not be better to have all standards enacted into law and in this way obviate these dangers?

The second hindrance to the best enforcement of state food and drug laws to which reference will be made is the much talked-of "Guaranty Clause." This guaranty clause may assist the federal government in the enforcement of the federal law, but it is certainly an obstacle to the enforcement of some state laws. No one is benefited by this clause, unless it be the party making the guaranty, yet many retailers and most consumers still believe the United States government stands sponsor for the purity of goods bearing this guaranty.

It is the policy of the Ohio department to prosecute the *first* offender—the manufacturer—where it is possible to reach him. However, unless the utmost care is exercised, the honest manufacturer may be caused to suffer for the frauds practiced by the unscrupulous retailer. Instances have brought to my attention where containers in which the manufacturer shipped pure goods, bearing a copper label, with the guaranty clause, have been refilled with an inferior article by the retailer.

A great effort was made during the last session of the Ohio legislature to exempt retailers from prosecution where a guaranty could be shown from the manufacturer or jobber. Such a law would be welcomed by the dishonest retailer, as it would relieve him of all responsibility, for the reason that on goods bought beyond state lines the department would be powerless to act. The consequence would be, if such a law were enacted, that all retailers who desire to evade state inspection, would purchase where the department had no jurisdiction, and thus work a great hardship to the honest manufacturer within the state.

The third difficulty is one which cannot be remedied by law, but only by further investigation and study on the part of the chemist. References made to the prepa-

ration of sophisticated products so closely resembling the genuine that the chemist cannot now detect the difference; or, in case the fraud *can* be detected the resemblance of the sophisticated product to the genuine is so close that conviction is difficult. Examples that may be cited are; small amounts of beef stearin in lard, small amounts of brown sugar in maple syrup, and spurious cider vinegar.

In the effort to overcome the many obstacles in the way of the proper enforcement of the laws much assistance may be obtained by making the acquaintance of the manufacturer, visiting his plant, learning his method of manufacture, and ascertaining the difficulties he must encounter in order to produce a pure, wholesome article. I believe most manufacturers favor good, practical food and drug laws, and some of them are willing to co-operate with the food departments. If the commissioner fails to accept their assistance he loses the advantage of a means which will aid him, in many instances, in determining the right course to pursue. Often more practical and useful information can be secured by a visit to the manufacturer than could be gained by extensive study of theoretical text-books and research in the laboratory.

Publicity is a great help in the enforcement of food and drug laws. A small fine is easily paid and soon forgotten, but a public condemnation of a certain brand of goods not only affects present dividends but is very likely to affect those of the future and in some cases drive the dishonest manufacturer entirely out of business. While publicity is a powerful weapon to the commissioner it is one which should be used with great care and judgment, for a single mistake might ruin a legitimate and worthy industry.

The consumer should be fully informed as to the provisions of food and drug laws and the protection they afford. Among the many ways in which this may be done are through the press, by bulletins, public exhibits, public addresses before different organizations and especially those in which women are a part or the whole of the audience. The buyer is the one whose co-operation is most needed, and the woman is usually the one who does the buying. When the consumer is educated to distinguish the good from the bad, then the laws will be easy of enforcement, as no manufacturer will produce goods for which there is no demand.

METHODS OF ENFORCING PENNSYLVANIA FOOD LAWS

BY JAMES FOUST,

Dairy and Food Commisisoner of Pennsylvania.

Seven years prior to my appointment as Dairy and Food Commissioner of Pennsylvania, I served as an agent in the field, having charge of the work in six counties in the central part of the state, and, later on, directed the work throughout the Commonwealth. Where laws were violated I instituted prosecutions, or directed the same to be instituted, employed expert witnesses and attorneys, and had general supervision over all cases until they were terminated. I soon learned that the methods employed in one county would not be successful in another. In Pennsylvania the PRESS largely controls the sentiment of the people. In some counties the daily and weekly papers strongly advocate the enforcement of the food laws.

In all such counties we experience very little trouble in securing convictions; while in other counties, where the PRESS is disposed to be unfriendly, we very often find sentiment opposed to our methods of correcting the evil of food adulterations. The PRESS is far-reaching and my instructions to all the representatives of the Bureau in the field are to always make the acquaintance of newspaper men and when there is an item concerning our work to see that representatives of the Press receive it for publication.

The Dairy and Food Commissioner of Pennsylvania is charged with the enforcement of the following laws: food; oleomargarine; renovated butter; fresh meat, game and fish; milk and cream (where preservatives or coloring matter are used); vinegar; cheese and fruit syrup.

It is difficult to frame a general law to cover all food commodities, as a law which defines what will constitute an adulteration and properly cover one article will not define and properly cover another; for that reason we have separate laws and are in need of additional legislation. There are no laws in Pennsylvania coming under the Food Bureau for enforcement covering alcoholic or non-alcoholic drinks, fixing a standard of butterfat for ice cream and prohibiting the watering and skimming of milk, fixing a standard of fat for ice cream and designating of what it shall consist, and regulating the sanitary condition of ice cream factories and milk depots.

The method of procedure under all the laws, except the food law, is by misdemeanor. The food law has a civil proceeding, which is very unsatisfactory. No police regulation can be properly enforced under this method. The objection to a civil proceeding in Pennsylvania is that many of the magistrates do not properly prepare the record where a case is appealed to court after judgment is given in favor of the Commonwealth. The Commonwealth can make out a complete case, the magistrate takes down what he thinks is sufficient and enters it on his docket, but when the transcript goes to court the most essential testimony which was offered by the Commonwealth frequently does not appear on the transcript; and often, because of an imperfect record, notwithstanding the fact that the article in question was adulterated and a complete case established, the court decides adversely. In addition to this, the civil proceeding is too slow and continuances can be secured from time to time for the most trifling reasons. There is also the fact that in many of the counties the civil lists are very much congested and it is years before a case is terminated. This condition does not exist where a defendant is charged with a misdemeanor. The next legislature will be asked to substitute a misdemeanor for the civil proceeding, and to make other needed changes in the Food Law.

For years the Dairy and Food Department of Pennsylvania was maintained largely from the receipts of the office, consisting of oleomargarine license fees and all fines. This hampered us in prosecuting our cases successfully. Counsel for the defense in their argument created prejudice by contending in court that we were compelled to secure fines in order to maintain the Bureau, and quite often this was the means of acquittal.

In 1905 the legislature made an appropriation providing, sufficient funds for the running expenses of all branches of the work, and at the same session further provided that all the receipts of the office be turned in

to the State Treasury for the use of the Commonwealth.

The following was the appropriation made by the legislature in 1907, for two years:

Special Agents' Salaries	\$40,000.00
Attorneys, Detectives and Assistants.....	40,000.00
Clerical and Stenographers	20,000.00
Chemists	31,500.00
Traveling & Agents' Expenses.....	35,000.00
	<hr/>
	\$166,500.00

This is as it should be.

The personnel of the Dairy and Food Bureau is as follows: Commissioner, assistant commissioner, accounting clerk, stenographer and bookkeeper, two clerks, messenger, fifteen special agents, eight chemists and four attorneys.

It is the custom to employ local counsel, experts and assistants when necessary. We believe in Pennsylvania that the enforcement of the food laws would be more successful if the legislature would provide a deputy attorney general to devote his entire time to the legal branch of the work. This would add prestige in the trial of cases, for we would then have the direct assistance of the attorney general's department; in addition to this, the legal part of the work would be uniform throughout the State.

Co-operation with the local health departments has been helpful in many ways. This is also true with reference to the assistance rendered by the Federal revenue authorities in the enforcement of the oleomargarine law.

The vigorous enforcement of the food laws in the past has brought about a marked improvement in the condition of the food supply in Pennsylvania. Eight years ago from seventy to eighty per cent. of the food commodities purchased in the open markets and analyzed were found to be adulterated or misbranded. The percentage has been reduced to from three to five per cent.

There is a great demand in Pennsylvania on the part of the trade for uniformity in national and state food laws. Are we ready for uniformity? Has the national law been sufficiently tried so as to establish the fact that it will accomplish the purpose of its enactment in the protection of the public health? Has it constitutionally been tested by the courts? If the provisions of the national law are sufficient and in harmony with the constitution, then we should have uniformity, but if we are to have uniformity, we should have something definite with reference to rules and regulations from the authorities having in charge the enforcement of the national food and drugs act as to what shall constitute an adulteration.

Dr. Wiley, Chief of the Bureau of Chemistry, Washington, D. C., has rendered valuable assistance to Pennsylvania in many ways in the enforcement of the food laws during recent years.

We omit our Directory of Food Control officials from this issue on account of our full and complete report of the Twelfth Annual Convention of the Association of State and National Food and Dairy Departments.

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ADDRESSES DELIVERED

AT THE

Twelfth Annual Convention

OF THE

Association of State and National Food and Dairy Departments

At Mackinac Island, Michigan, August 4th to 7th, 1908

DAIRYING IN WASHINGTON.

BY L. W. HANSEN.

Washington State Dairy Instructor.

Mr. President, Members of the Convention, Ladies and Gentlemen: I assure you that it is an honor for me to have the privilege of addressing you on this occasion. The subject which has been assigned to me by your worthy secretary is Dairying in Washington. Perhaps a more appropriate title would be dairying in Wonderland. Nature has been kind in every respect to our far northwestern state. Few states can equal our condition and advantages. Our climate is for the most part even and mild, and likened unto spring. We do not have the severe winters of the east, nor the intense heat of its summers. Our soil is unsurpassed. The farmers of nearly every section of the state can produce crops which grow to make up the desired balanced ration for the dairy cow. The markets, both home and foreign, are of the best, and these markets are improving from year to year. The country has developed at leaps and bounds under the stimulus of improved transportation facilities. With all these natural and other advantages, Washington will some day rank among the leading dairy states of the western hemisphere.

The picturesque Cascade Mountains forming a natural barrier from north to south, divide the state into eastern and western Washington. These sections differ one from the other in soil, rainfall, agricultural products and local problems. The western portion is

for the most part a heavily timbered section, with rainfall in the winter in place of snow. Much of it is choice agricultural land, which must, however, be reclaimed from the forests before it can be retimbered. This is rapidly being done by the lumbermen. Dairying will ever be an increasing industry in this favorite region. Long before the farms studded with the stumps of giant firs and cedars, submit to the tiller's plow that view the broad acres of the Mississippi Valley, the thrifty farmers can avail themselves of almost ideal dairy condition and reap their rich reward therefrom. The problem of the logged-off lands is best solved by the dairy.

The eastern portion of the state is by far the greater in area. This region is again divided into two sections, the upland prairies and the sandy valleys of the river bottoms. Wonderful crops of wheat are raised on the fertile soils of these uplands. In the lower sandy valleys of central Washington, a much different problem confronts the farmer. A few years ago this region was considered worthless. Now on every hand the irrigating canal stretches out and we see the dry, sun-baked wastes turned into a natural paradise. Wonderful forage crops are raised. The Yakima and the Wenatchee valleys are world famed for their fruit. Good flourishing towns have sprung up as if by magic. Here the first cost of milk production is reduced to a minimum. By growing the wonderful alfalfa plant, which constitutes the principal forage crop of this region. If Washington were to depend upon its irri-

gating sections alone, she would still be able to take a high rank as a dairy state.

The upland prairies constitute the great grain growing region. When the price of grain is high the farmers of the section under consideration, pay very little attention to anything but wheat raising. When the price of grain is low they very quickly turn their attention to dairying. The continual cropping of wheat from year to year will tend to reduce the original state of fertility of the soil to an impoverished condition. When the farmers come to realize this more fully they will turn their attention to a greater extent to dairying. That dairying can be made to pay in this section has been amply demonstrated by farmers who are at present actively engaged in this line.

The dairy industry in Washington is just practically in its infancy. Wonderful strides have been made in the past, and in the future we can see a far greater advance. Our dairy laws have been the statute books since 1895, and through the efficient manner in which they have been enforced the industry has in like manner advanced. Very limited quantities of oleomargarine are sold. That which is sold is offered in a separate and distinct manner. No filled cheese is sold at all. The sale of renovated is in conformity with the Federal law. The state brand is required on all butter manufactured at creameries in the state thus protecting the Washington product from an infringement from the outside. The high standard set for the sale of milk and cream has improved the average quality sold in the cities and towns.

Today the man who engages in the dairy business in Washington has his choice of several dairy markets. He may produce milk and cream for the city trade, or if located in the country some distance from the market, he finds no difficulty in disposing of his product to the local creamery, cheese factory, condenser or to the large centralizers. Other farmers are availing themselves when conveniently located, of the splendid demand for sweet cream for hotel trade and the ice cream industry. These markets are possibly due to the improved railroad and steam boat facilities.

The creamery side of the industry is growing by leaps and bounds. Good flourishing creameries are found in every section and in the larger cities and towns. The equipment of the creameries is modern in every respect. Improved and the latest methods are employed in the handling of the cream.

The hand separator is now to be found on every farm where cows are kept, providing the product is not sold whole to a city, cheese factory or a condensed milk plant.

There are no whole milk creameries in this state where butter is manufactured. A few skimming stations are in evidence, just for the purpose of securing sweet cream.

Another important phase of the industry is the manufacture of evaporated milk. Wonderful progress has been made in the past few years in this particular line. From one small factory in the heart of great hop country, we now have evaporated milk plants in six different localities on the western side of the mountains, ranging in capacity from 25,000 pounds of milk to 100,000 pounds of milk per day. Two more factories are under consideration at the present time. I venture to say that some day the Pacific coast, especially the northern portion, will be famous as a region for the manufacture of evaporated milk. The climate and forage crops and meadows seem to be adapted to

the production of the quality of milk, which, when processed makes an article of the finest quality. The demand for the product seems to be unlimited. Alaska, the Orient, Siberia, the Islands of the Pacific and the U. S. furnish an ever increasing market.

Washington cannot boast of a cheese industry. The state never has produced any quantities of cheese, and with the advance of the evaporated milk industry, the manufacture of cheese has decreased at a marked rate.

There are in all about ten cheese factories at the present time. Yet the time will come, I believe, when Washington will produce quantities of cheese as well as other dairy products. The best quality of cheese can be manufactured there. Conditions favorable to the manufacture of evaporated milk, are identical with those required for the production of cheese. Nor does the cheese maker have to contend with such vexatious problems as hot nights, gassey milk, and off-flavored milk, due to strong flavored weeds and grasses. The last two conditions are met with occasionally, but where the farms have been cultivated and the farmers have received instruction as regards to the handling of their milk, very little trouble is experienced.

With all these conditions favoring profitable dairying in Washington to such a marked degree, it is painful to note the indifference often shown by the producer. The keen competition for his product is often responsible for this feeling. The producers are aware of the fact that they can dispose of their product often times regardless of the quality. The manufacturers of the raw material are not in a position, due to the great demand for the product, to insist on a high grade quality. It devolves for the State Dairy and Food Department to better these conditions. A grading system should be adopted by the creameries, whereby the cream could be bought not merely upon a butterfat basis, but upon the quality as well. The creamerymen and concerns where dairy products are manufactured, cannot take this up alone. State aid is needed in order that they may be upheld in their efforts to secure a better raw material.

The Dairymen's Association of Washington has been responsible for the enactment of the Dairy & Food Law, and also for the creation of the office of State Dairy Inspector. This office was created by the State Legislature of 1905, the official being a Deputy of the State Dairy and Food Commissioner. The leading dairymen of the state and those persons who have the interests of the state as a dairy state at heart, have realized that unless some definite plan of movement was put into effect, the products of the Washington dairy farms would suffer. It was my good fortune to receive the appointment as the first Dairy Instructor. When the present administration entered upon its duties, the following conditions were confronted. A large number of farmers were manufacturing butter on their farms, selling their product in the open market under the state brand. Others were selling their cream to the creameries. To improve the butter standard it became necessary to direct our efforts to the butter manufactured on the farm and to the cream sent to the creameries, and to its manufacturer. The milk problem was to see that cleanliness was observed in every detail, so as to insure a clean product when sent to market.

In the work of instruction I have been obliged to make use of a number of means, owing to the limited appropriations we have had at our disposal, which has greatly handicapped our work. But by planning and

co-operating with the creameries and the Agricultural College, we have, I am pleased to state, been enabled to reach almost every dairy section of the state.

In most dairy sections, cream routes are operated by the creameries, thus I have been able to accompany the drivers and visit the patrons, making suggestions and pointing out to them wherein they can improve their products.

Another has been through the medium of Farmers' Institutes, conducted under the direction of the State College. These Institutes are held in every county in the state, and we have been able to reach a great many farmers in this way, who otherwise could not have been reached.

The attendance at these Institutes has been most gratifying, the farmers realizing that their interests are best served when they attend.

Another valuable asset to the dairy industry in Washington, has been the School of Dairying, which is located at the State Agricultural College, Pullman, Washington.

This school was organized about the same time that the State Dairymen's Association was organized. Its graduates are now to be found in this state and in other western states. Many of them have returned to the farm and are actively engaged in dairying.

A traveling dairy school has also been instituted. Last year was the first attempt in such a line. The results were so gratifying as to warrant the establishment of a regular system. Practical work in milk and cream testing, the judging of dairy cattle, and lectures on the various phases of dairying are carried out, and a movement is now on foot to form a testing association among the dairymen.

The milk supply of the cities and towns has also received a considerable amount of attention. The means of inspection found in the cities and towns, when this administration entered upon its duties, were primitive. Only one city in the state had at that time an inspector. The other cities had been depending upon the Dairy & Food Commissioner and his Deputy to do the inspection work. This was done in as good a manner as possible, but the work was always handicapped due to the lack of funds. Today the larger cities have inspectors of their own whose duty it is to see that the milk sold is pure and of good quality.

The smaller cities still depend on this Department to a large extent, although the local and county health officers have taken an active part in the inspection work by co-operating with our Department.

The dairies throughout the state are being inspected by this Department as often as possible, and all inspected are scored. The system is resulting in much good. The farmers are willing to take suggestions and are anxious to receive a good score.

In conclusion permit me to say that the future advancement and possibilities of this state rest not only with one body, but with several bodies. We look forward to a time when we shall have closer co-operation between the farmer and the creameryman and manufacturer of other dairy products. A closer relation must exist between the creameryman and the Dairy and Food Department. The farmers must also realize that dairy inspection is not for the purpose of working a hardship upon them, but rather to stimulate and show them that the product can be produced in a clean and sanitary manner, thereby insuring the public that the article which it pays for is of the best, and in

the end giving value in full to both producer and consumer.

Ladies and Gentlemen, the far state of Washington is young, vigorous and growing. Its physical beauties compare with Greece and Switzerland. Its climate is ideal for dairying. The foundation has been laid upon which to build a great dairy industry.

The spirit of our people is energetic, and we will build on that foundation ourselves.

If any Easterners wish to come west, and cast their lot with us, we will welcome them in a true open-hearted, western style. Share with us in the work and you shall share with us in a great reward.

You who are struggling with the great and the intense heat, come west; and help make Washington what nature has manifestly intended she should become—the promised land of milk and honey.

I thank you.

THE NEED OF STATE AND MUNICIPAL MEAT INSPECTION AS A SUPPLEMENT TO FEDERAL INSPECTION.

BY A. M. FARRINGTON, D. V. M.

Assistant Chief, Bureau of Animal Industry, United States Department of Agriculture.

To provide clean, healthful, wholesome meats for rich and poor alike is one of the problems of modern civilization. In the early days when the people lived in rural communities each house holder killed animals of his own raising to supply meats for his own family and for his neighbors. In these days when people are massed in large towns and cities it is not possible for each individual to know from personal observation the source of his meat supply and whether or not it comes from healthy animals.

The purchaser as he finds the supply at retail stores or markets can determine whether the meat is satisfactory in appearance, price, and cut, but its source and previous treatment is almost a sealed book and positively unknown to the majority of people.

The first effort to solve the problem of a healthful meat supply for the people of the United States was begun by the Federal Government in the meat inspection act of March 3, 1891.

a. The act of August 30, 1890, provided for the inspection of meat for export only, and was a commercial rather than a sanitary measure.

This act was not adequate for the purpose, in that it did not give sufficient authority to supervise all the processes to which meat is subjected. It enabled the Department of Agriculture to certify that the meat of animals at the time of slaughter was free from disease, but it gave no power to follow the meat through the different processes of curing, pickling, smoking, etc., in the packing houses, nor did it give authority to supervise the sanitary condition of the rooms or buildings where this meat was handled. This lack of authority has now been obviated by the Federal meat inspection act of June 30, 1906. By this act the extent of the meat inspection conducted by the Government has been greatly increased and enlarged.

During the fiscal year ending June 30, 1906, Federal meat inspection under the several previous acts had been conducted at 163 establishments in 58 cities and towns. In the fiscal year ending June 30, 1908, such inspection had been conducted at 787 establishments in 211 cities and towns. The number of employees required to put in force the provisions of the new act was 2,200 as against 981 under former acts. There

was a proportionate increase in the amount of money spent, \$2,750,000 being the amount expended for the fiscal year 1908, and \$771,661 for the year 1906. The act of June 30, 1906, makes a permanent annual appropriation of \$3,000,000 for meat inspection.

With the authority of this law the Secretary of Agriculture is required to cause to be made (by inspectors appointed by him for that purpose) a post-mortem examination and inspection of the carcasses and parts thereof of all cattle, sheep and swine to be prepared for human consumption for transportation, or sale, as articles of interstate or foreign commerce. The act makes an exception in the case of animals slaughtered by farmers on the farm and retail butchers and retail dealers supplying their customers. All carcasses which come from healthy animals are marked by a metal or rubber stamp and purple ink, with the legend, "U. S. Inspected and Passed," also the official number of the establishment.

Consumers of fresh meats selecting meats which bear this stamp are assured that it came from animals found healthy on post mortem examination, *but*, the Federal inspection is *limited* to establishments that are engaged in supplying meats for the interstate or foreign trade. Although some of this meat is no doubt sold for local consumption a *great quantity* of meat is put upon sale that does not receive such inspection.

It will be interesting to inquire into the *number* of animals that are killed to be consumed within a State. The slaughter of food animals in the United States may be divided into three classes,

(1) The wholesale and packing, (2) the slaughter by small butchers, and (3) the farm slaughter. Although exact figures cannot be given, enough can be shown to indicate that the number of animals annually slaughtered by local butchers is probably very much larger than is generally supposed.

Estimated Number of Cattle, Sheep and Swine in the United States, and Number Slaughtered With and Without Federal Inspection, etc., During 1907.

Item.	Cattle.	Sheep.	Swine.
Number in United States January 1, 1907 (estimated by Bureau of Statistics, Department of Agriculture) . . .	72,534,000	53,240,000	54,794,000
Estimated total number disposed of in 1907 a . . .	14,507,000	19,166,400	59,725,460
Slaughtered under Federal supervision	7,633,365	10,252,070	32,885,377
Estimated Farm Slaughter	1,500,000	1,000,000	16,500,000
Exported alive . . .	401,583	121,197	23 783
Remainder slaughtered by butchers without Federal inspection	4,972,052	7,793,133	10,316,300
a. Percentages applied: Cattle 20%; Sheep, 36%; Swine, 19%.			

Note: In addition to the above there were 2,024,387 calves slaughtered under Government supervision, and probably fully as many without Government inspection.

It is seen that practically five million cattle, nearly eight million sheep, and over ten million hogs were

slaughtered in 1907 *without* Federal inspection, to which may be added about three million calves. *All* these 26,000,000 animals were consumed by the people of the United States, and the responsibility of inspecting them has rested wholly upon the State and local authorities, since they are beyond the reach of the Federal inspectors.

The slaughter-houses where animals are killed for local consumption are usually *isolated* and scattered about the city or town, either situated on some back street surrounded by stables and dwelling houses or outside of the corporate limits, each butcher apparently trying to avoid observation. In many instances the houses are located on the banks of streams or creeks and the drainage is toward such streams.

Such houses, in addition to being unsightly, malodorous, unclean, and insanitary in the extreme, are actually centers for spreading disease. Where hogs are slaughtered it is more than probable that a hog infected with trichinae will be killed. The offal of such a hog when eaten by rats will infect them. These rats when eaten by hogs will again communicate the disease.

Rats act as direct transmitters of trichinosis to hogs, and this is not the only disease which may be spread by offal feeding to hogs. Old dairy cows are not infrequently killed at these houses, and from the large amount of tuberculosis found in this grade of cattle it follows that tuberculosis will be communicated to hogs feeding upon the offal.

The local slaughterhouse is also the center of infection for a number of animal parasites which are injurious to live stock or in some cases even to man and which are spread to dogs. It is well known that dogs come to such slaughter houses for food and when infected viscera are eaten by them they become infected and through them infection may be transmitted to other animals and to man. Several species of tapeworms are distributed in this manner.

Hog cholera is another disease which is spread from local slaughterhouses from improper disposal of the offal.

That the conditions which obtain at these local slaughterhouses need attention from authorities competent to deal with the situation is shown by a recent investigation made by the State Board of Health of Indiana of those slaughterhouses which do not have Federal inspection. An official summary of the report is as follows:

"Of the 327 slaughterhouses inspected, only 23 or about 7% were found to fulfil the sanitary standards. At nearly all slaughterhouses inspected, foul, nauseating odors filled the air for yards around. Swarms of flies filled the air, and the *buildings*, and *covered the carcasses* which were hung up to cool. Beneath the houses was to be found a thin mud or a mixture of blood and earth, churned by hogs, which are kept to feed upon offal. Maggots frequently existed in numbers so great as to cause a visible movement of the mud. Water for washing the meat was frequently drawn from dug wells, which receive seepage of the slaughter yards, or the water was taken from the adjoining streams, to which the hogs had access. Dilapidated buildings were the usual thing and always the most repulsive surroundings and odors existed.

"Slaughterhouses of fair sanitary condition were not found. They were awfully and abominably bad or else met the standard completely."

By this statement it can be readily appreciated that

it is necessary to improve the efficiency of the inspection of meat and meat food products that are consumed entirely within a State. It is almost impossible to secure an effective system of local meat inspection without a great increase in the number of competent meat inspectors employed, or a *concentration* of the business of slaughtering.

It is largely on account of the multiplicity of slaughterhouses that thorough systems of meat inspection have not been more generally established. In the small houses very frequently the slaughtering is done at night or very early in the morning, and it would necessitate the employment of a small army of inspectors to provide a sufficient number so that one should be present at each place.

The plan of concentration of slaughtering is supported by the experience of all the older civilized countries. It is recommended not only because it facilitates the inspection of meat, but because of numerous advantages.

Since the local slaughterhouses especially are prolific sources for the spread of disease, the segregation of such places would materially reduce the number of centers of infection. It would eliminate all of the small, poorly built, badly managed slaughterhouses which are in many instances nuisances in their respective neighborhoods.

It would give the small butchers the advantages enjoyed by wholesalers and the large packers; they could use the machinery installed and the increased facilities supplied in the way of an abundance of hot and cold water for cleansing purposes which are greatly superior in a large plant, and the *refrigeration* is much more perfect in such a plant and would result in increased wholesomeness of meat to their consumers. The character of the local meat supply would gain in reputation and would enter into competition with that supplied by the large packer. Instead of increasing the cost, the tendency of centralization is to reduce it. A large establishment can be conducted by co-operation among the butchers at less expense. Such a system is a great safeguard to the consumer of meats, while it subjects the butchers to no hardships whatever, but makes it more convenient and cheaper for them to conduct their trade. In Europe such union or central abattoirs are owned by the municipalities, and undoubtedly this is the best system, since all butchers are assured of equal rights and privileges. Germany has more than six hundred slaughterhouses belonging to municipalities.

If cities and towns of the United States are not prepared to adopt the plan of *municipal abattoirs* they can at least secure a *segregation* of slaughtering and to require animals to receive a careful post mortem at the time of slaughter.

One immense advantage to be derived from the consolidation of slaughter houses would be the increased value received from the *by-products*, which are practically lost by the small slaughterers. That the value of such by-products is an important item is apparent from the statement of Mr. J. Ogden Armour, made to the Bureau of Corporations in the recent investigations of the beef industry. He spoke as follows:

"The ability of wholesale butchers in the small towns to compete with the small packers in the sale of beef depends entirely upon conditions. At times such butchers can buy cattle so cheap that the large packers are almost excluded from doing business in their towns. When such a butcher has to buy his cattle in

the same market that the large packers do, we are able, through our economies in manufacture and through making articles of value out of what would go to waste in his establishment, to sell to the retailers at a lower price than the local wholesale butcher can do."

From this statement and from other statements of a similar kind brought out by this investigation it is evident that the value of the by-products is an important source of profit; in fact it has been stated that the packing business of to-day would be carried on at a loss but for the utilization of the by-products. Whether this is true or not, it must be conceded that the saving of these products and converting them into articles of commercial value is a powerful argument for the centralization of slaughter houses. It is by this plan of concentration that the modern packing business has grown to its present magnitude, and by following the same plan it is possible for the small butcher to reap substantial rewards.

Consider for a moment that when animals are slaughtered not all of the product is edible for meat. Fat cattle, for instance, dress only about 60% of the live weight, sheep about 50%, and hogs 80%. The remainder need not be destroyed and become a total loss if there are proper facilities for handling it. This is done in modern abattoirs but cannot be accomplished where there is not suitable equipment. From packing-house statistics it appears, in the case of cattle, that the value of the hide and offal would probably increase the total percentage to 75. In other words, the 40 per cent of offal is equivalent in value to about 15% of meat.

The most valuable product next to the beef, is the hide which, of course, is usually saved by country butchers, but in large abattoirs where cattle are killed the removal of the hide is so skilfully done that its value is much greater. Tanners pay three-fourths to one cent a pound more for such hides than they do for country hides, which are often cut or damaged in stripping.

The next important item is the tallow, which, when properly treated, becomes valuable in the form of oleo oil and stearin. The feet, from which neatsfoot oil is extracted, the bones of the skull, the horns, and even the sinews may be utilized. When machinery is available for proper preparation, the casings, which are entirely lost in small slaughterhouses, yield a good return, thus saving the expense of importing from foreign countries, which is now done to some extent.

Other by-product such as tongues, livers, sweetbreads, beef hearts, tripe, and blood albumen, with proper attention and refrigeration, can be available for food where formerly they were thrown away as useless and not worth the trouble required to keep them.

The tankage is another product which is of value. The liquid which is pressed out of the tankage is saved and after boiling and treatment by chemicals is known as "concentrated tankage" and is sold on ammonia basis.

It would seem, if for no other reason than the saving of these by-products, that concentration in slaughtering and competent inspection should be advocated and upheld from a commercial point of view.

Since the Federal law will not permit meat slaughtered under insanitary conditions, to enter into interstate and foreign trade nothing remains but for it to be consumed within the State, therefore it is up to public opinion and effort to bring about a more cleanly and

healthy condition in this direction. Let organizations like this and those having similar objects in view bring before the people the revolting conditions from which some of their meat is supplied, and public sentiment will force those in authority to take measures to better the sources of supply.

It is only fair to say that a packer who submits to Federal inspection and destroys all animals which are unfit for food purposes incurs a heavy expense not known to the slaughterer who has no inspection of any kind and who sells diseased meat at the same price he receives for healthy meat. Consequently the packer or slaughterer whose product is subjected to a rigorous inspection should receive, in all fairness, a higher price for his product than the packer or slaughterer who operates without inspection.

Therefore, adequate meat inspection may not make meat cheaper, but it will make life longer, and the increased cost will be more than offset by the saving in drug bills and doctor's fees.

THE CORRECT NAMING OF CHEESES.

BY G. E. PATRICK.

Chief, Dairy Laboratory, Bureau of Chemistry, United States Department of Agriculture.

The few thoughts I have to offer on the nomenclature of cheeses will refer mainly to incorrect naming that has come into use without original intent to deceive, rather than to incorrect names deliberately applied with deceptive purpose. I will not dwell upon such examples as the American made, skimmed sour-milk-curd-cheeses, masquerading under the name of the delicate French rennet-cheese, Neufchatel; nor upon the so-called Roquefort frequently seen in our stores and markets, as innocent of sheep's milk and the special flavor-producing mold used in making the real Roquefort in France, as of any pretense of importation. Such products as these will claim our attention only long enough to remark that, in the matter of naming, they appear to be in the same class as the Guinea-Pig—which animal, as every one knows, is not a pig and did not come from Guinea.

Leaving aside such brazen impostors, I wish to direct your attention to our eminently respectable, life-long acquaintance, ubiquitous, hoary with age—the time-honored FULL CREAM CHEESE. To attack such long standing respectability, such a trade-bulwarked custom, requires temerity, perhaps evinces fool-hardiness, but I venture it nevertheless.

The high-sounding name Full Cream Cheese, as applied to simply whole milk cheese, has, I opine, already had too long a day. The name, probably at first applied without intent to deceive, must in this day of close scrutiny and exact appellation be declared *misleading*, whether or not it be considered absolutely false. But what harm in the name, some one will ask, so long as every one knows it means only whole milk cheese? In the first place, every one does not know it. Many purchasers are deceived by it daily. Many others, who have never seen or heard the name, will perchance see it for the first time in large letters on the box of some fancy cheese, selling at a high price. Under such circumstances, what else can they think than that here is a wonderfully rich cheese, made entirely of cream? And alongside this cheese they may see another, labeled So and So's Cream Cheese. This, they will naturally believe to be a fine rich article, made with a certain amount of cream, but in all probability not nearly as rich as the one labeled FULL CREAM

CHEESE. The latter must surely be the top notch of richness among cheeses. How could there possibly be anything richer? Astounded indeed would they be if told by some friend with dairy knowledge that the Cream Cheese contained 10, 20 or perhaps 30 per cent. more fat than the Full Cream! "Something rotten in Denmark" would likely be their comment and from that time on they would harbor a deeper distrust of labels than ever.

And this is not all. If "Full Cream Cheese" as the name for whole milk cheese shall be allowed to go unchallenged, why not "Part Cream Cheese" for a partly skimmed product. This would be called deceptive at once by every one—the name has no years of usage to give it standing and dull our wits; yet logically it is as much right as the other. And let me assure you that this is not a mere academic discussion, for the thing has actually occurred. In my routine work for the Department I have encountered just such a case. Skimmed-milk cheeses—more than half skimmed—were sent in quantity into interstate commerce under the brand "Part Cream Cheese." Entirely logical, if "full cream" as an adjective means "whole milk"; but in fact, entirely misleading. The brand, in the case mentioned, has been changed (or else the product abandoned); but the logic remains good and will remain good so long as the term "full cream cheese" for the mere whole milk product remains in vogue.

I do not say the time has come to immediately, without warning, suppress the term as false and misleading. Some consideration, I admit, is due because of its long use in the trade. Its suppression should be preceded by discussion, education. And that is why I present these views to you, the Food and Dairy Officials of the country, in the hope that if you agree with me, you will use your influence with pen and tongue in all possible ways to bring about a correction of this antiquated and misleading form of nomenclature.

CITY MILK INSPECTION.

BY E. H. WEBSTER.

Chief of Dairy Division, Bureau of Animal Industry, Department of Agriculture, Washington, D. C.

The purpose of milk inspection is to protect the public against impure milk. There are four general sources of impure milk which come under the observation of the inspector, namely, milk from diseased animals, milk handled by attendants affected by communicable diseases, the milking and handling of milk in unsanitary surroundings, and without proper means of handling and distribution.

In order to detect these various defects found in the milk on the market, four general classes of inspection are necessary: Veterinary, Medical, Sanitary and Laboratory.

Veterinary inspection covers the health of the animals; it may or may not include the use of the tuberculin test, but should in all cases exclude all animals from the herd affected with any disease that may be detected on a physical examination. The best interests of the consumer will be attained when the tuberculin test is applied to all herds of dairy cattle furnishing milk for market purposes. This, however, is a question that will need much agitation and much education on the part of the producer and consumer before any rigid laws or ordinances can be effectively carried out with this purpose in view.

Medical examination: Inspection should be made where necessary of the family and attendants handling

milk up to the time it is delivered to the consumer. The reports of health officers by physicians, where contagious or infectious diseases prevail, should be made part of the records of the inspection service, and the milk from these places should be cut off until a clean health certificate is furnished by the attending physician.

Sanitary inspection includes a careful review of the cleanliness of the barns, the dairy houses, the animals, of all utensils and methods of procedure, and perhaps of greatest importance when compared with the other inspections made. It should go without saying that troubles found through veterinary and medical inspection should at once cause the milk supply to be cut off from the general market. The question of sanitation is one of degree to a large extent. The rigidity with which regulations in regard to sanitation must be enforced will depend largely upon the ideals and wisdom of the authorities and the amount of educational work which has been done among the producers of milk. Flagrant cases should, of course, be cut off from general supply. There are a large number of men producing milk who fail in various ways to comply with strict sanitary ideas and yet their milk is of sufficient high quality to be admitted.

Laboratory inspection should cover the chemical and bacteriological analyses of samples taken either at the farm or in the city from distributing plants or from wagons engaged in the process of distribution. Such inspection is an index and check on the work of the other inspectors engaged in this service. It is a mistake to depend too much upon the bacteriological count as to the general condition of the milk supply. There are so many complicating conditions that enter that at best the bacteriological count serves only as an index or warning that milk having such high counts may be dangerous and that there must be closer inspection of the premises and methods of distribution in such cases.

The methods of inspection are: 1st. Education. 2nd. Publicity; and 3rd. Police Authority.

The greatest of these is *education* in its value for improvement of the milk supply. The average producer of milk does not realize the importance of his responsibility in the production of pure milk. The inspector must be able to teach him the importance of this and do it in a way to encourage him to take greater pains in all the work he does connected with the production of milk.

The publication of results of inspection has a strong moral effect in many ways, and helps in raising the standard. Few men like to stand at the bottom of the list—if such publicity is given to reports of inspectors an incentive will be given to those who have low standards to come up higher on the list.

Police authority should be sparingly used and only in cases where education and publicity do not have the desired effect. The man who is, by nature, filthy in his habits must be made clean, or put out of business. Police inspection should be exerted to make him clean up his premises, which he may do while the inspector is on the place, but in order to insure that he remains clean, a continual inspection would be required. This would be out of the question. No amount of inspection that can be afforded will insure good results from such a place. This shows the inadequacy of police power in regulating sanitary conditions. So far as the common adulterations of milk are concerned, such as watering, skimming, and use

of preservatives, the police authority is very effective in checking such misdemeanors. But the source of greatest danger in milk is not from watering or skimming, but from insanitary surroundings in the production of the milk. A change in these conditions means the general elevation of the whole mass of producers of milk and a higher understanding of their duties and a new conception of cleanliness. The results obtained from such inspection will be that a small percentage will reach satisfactory conditions, a much larger percentage will fail in one or more points, and another small percentage will fail in many or all points.

The only logical conclusion that can be drawn from these results is, that the milk which is satisfactory from all points of inspection should be admitted for sale in its natural state, that milk which shows that the producer has failed in many or all points should be prohibited from city sale.

The great amount of milk which is in many ways high grade and yet may have some objectionable features connected with its production so that it would not be safe to sell it in its natural condition, should be pasteurized under the supervision of the city officials. The great fault in the general supply of milk will be found in this class, and it will be probably many years before a sufficiently high standard of education and efficiency is brought about so that the large bulk of milk will be satisfactory in all conditions and may be used in its natural condition of raw milk with perfect safety.

It is not the purpose of this paper to discuss the pros and cons of pasteurization. It is sufficient to say that if the milk is suspicious in any way because of the slightest neglect on the part of the producer it is the logical conclusion that such milk should be pasteurized so as to remove all suspicions from its use. The fact that such milk is pasteurized does not in any way remove the necessity of strict supervision, as above outlined. Pasteurization will not make bad milk good, neither is it a panacea for the ills of the city milk trade. It is to be used under strict control of the officials as an additional safeguard to the consumer coming from sources of supply which are not entirely satisfactory.

DRAWN VS. UNDRAWN POULTRY.

BY E. W. BURKE.

Wyoming Dairy, Food and Oil Commissioner.

Gentlemen: It is not an uncommon experience to hear people wish for things as they were years ago. Nor is it uncommon to find people doing things because their grandparents did them. They did them, therefore, they are right. Prehistoric man caught his fish and slaughtered his game and ate what he wished and left the offal to decay in the glaring sun at the entrance of his abode. Because he did this it was the proper way, also the easiest, therefore, for countless generations the practice so continued.

AN EARLY DISCOVERY.

In some unaccountable way man discovered, or at least civilized man discovered, that if he desired to keep the meat of the larger animals for any length of time he could do so much easier, and the flavor would be much enhanced, if the entrails were taken from the animal soon after slaughter. This had been discovered by our forefathers some time in the distant past, and because they did it we have continued the practice with very little thought of the real rea-

son for it, except that, since they did it, it must be right. How long ago this was discovered, those of the present generation know not.

THE COLD STORAGE BIRD.

Although this is true of the larger animals, it has not been true of the smaller animals. Our forefathers did not see the occasion for taking the entrails from smaller animals, probably for the fact that they were eaten soon after they were killed. We, in this generation, still continue to slaughter birds and small game, and often go so far as to put them in cold storage for six months or more without drawing the entrails, and we believe it is right and the most healthful method of procedure because our grandfathers did it. It is true that our grandfathers did not put the game in cold storage, but to keep it a time longer, in our estimation, should have no effect upon the old principle.

AVERSE TO RADICAL CHANGES.

Most of us here today know something about how difficult it is to get people to reform their ways. People are prone to live in the past and question very much the advisability of making changes, especially if they seem radical. Upon the face of it, it would not appear that the putting into effect of a law requiring the drawing of poultry and small game would produce much of a commotion anywhere, as it looks like a very small matter. If you gentlemen think so, however, I would advise you to draft such a law when you go home and present it to your legislature, and I am inclined to think that the subject will become very large in proportion in a very short time.

THE WYOMING LAW.

In 1907 the legislature of Wyoming added the following section to our laws:

"Sec. 3. Every person who shall sell, offer or expose for sale for human food any slaughtered or dressed poultry, game birds, or game animals, wild or domestic of any description, or fish, from which the entrails, crops and other objectionable or offensive parts have not been drawn and removed immediately after the same has been killed or slaughtered for market shall be fined not less than fifty nor more than two hundred dollars, and, in addition, the court may in its discretion order the confiscation and destruction by the commissioner of any or all such products sold or offered for sale.

CONSUMERS GOT BUSY.

This section of the law was passed by the legislature in the State of Wyoming due to pressure brought to bear upon them by the public. By that I mean the consumers, for the fact that the people of our state are consumers and not producers of food products.

SEVERAL POINTS OF VIEW.

My subject, "Drawn vs. Undrawn Poultry," may be taken up from several standpoints. Comparative keeping qualities of drawn and undrawn poultry; the comparative healthfulness of drawn and undrawn poultry; and the comparative flavor of drawn and undrawn poultry. I will take these questions up as far as it is possible to do so in the time allotted me and discuss them.

SOME OPPOSITION TO LAW.

Packing house and cold-storage operators throughout the country were opposed to the passage of the sections of the law referred to above, claiming that poultry would not keep if it were drawn and that it

was more unhealthful in the drawn state than in the undrawn condition.

UNFIT FOR HUMAN FOOD.

The people of Wyoming, on the other hand, had this argument, that as things were prior to the passage of the bill (since the poultry industry was not carried on except to a very limited extent in Wyoming), cold storage poultry was shipped promiscuously throughout the state from eastern cold storage houses in the undrawn condition and in most cases this poultry was absolutely unfit for consumption. It is this class of poultry which was used to a large extent in serving up spring chicken at the cheap hotels, restaurants and boarding houses.

NOT A NEW PRINCIPLE.

This law is not an experiment. The state of Minnesota has a law almost identical with the Wyoming law, which has been in force since 1895. It must be remembered, too, that Minnesota raises most of her own poultry for consumption, and it is placed upon the market generally very soon after slaughtered, consequently there is no such occasion for the law as there is in the State of Wyoming.

SACRAMENTO CITY LAW.

In 1895, in Sacramento, the city fathers had the subject brought to their notice and these wise counsellors passed a city ordinance making it unlawful to sell, offer or expose for sale any slaughtered poultry, fish, game, or any animal used for food purposes refrigerated or otherwise which has not been previously drawn by removing the viscera at the time of slaughter. This ordinance has been in effect in the City of Sacramento for over three years. Dr. Franklin G. Fay writes concerning the ordinance as follows:

FAY ON ORDINANCE.

"Although this represents the pioneer work done on this coast, it created such a decided change in public demand that the dealers were forced to acquiesce, and no difficulty is experienced in enforcing legislation wherein the consumer is well informed in regard to this subject."

In the City of Sacramento at least, as far as enforcement of such a law is concerned, it has passed the experimental stage.

THE KEEPING QUALITIES.

There has been a great deal of controversy in regard to the keeping qualities of undrawn poultry. The reports of the Canadian commissioners of agriculture show that the requirements of the English market demand that the intestines be removed. American authorities differ widely upon this question. In some experiments, performed in 1906, under the supervision of the department of agriculture at Washington, it was found that under precisely the same condition of temperature and humidity, drawn fowls will keep from 20 to 30 days longer than those not drawn.

WHERE TROUBLE BEGAN.

The intestines were the first to show putrefaction. The opening of the body of the animal and the exposing of internal surfaces to the air may have some influences on hastening putrefaction, it is admitted, but when the process of drawing is properly conducted, this secondary objection may be entirely set aside. Of course, absolute care should be maintained throughout the operation. If the intestines are drawn

and their contents are allowed to come in contact with the flesh of the animal its interior should be washed out at once with clean cold water and afterwards in a solution of common salt.

NOT WELL FOUNDED CLAIM.

Poultry, whether drawn or undrawn, will keep sufficiently long under ordinary conditions for all practical purposes, and it appears to me that since the poisonous gases and liquid in the intestines and crops of undrawn poultry begins to diffuse through the flesh immediately after the animal is dead, contaminating it, that the objection which we will assume is true, which is brought up by the cold storage people, is not a well founded one unless they desire to keep their meat in cold storage rooms anywhere from six months to three years waiting for a rise in prices.

WISDOM OF HUNTERS.

The keeping of poultry for such great lengths of time is not of such great importance as the healthfulness and flavor of the meat. In bulletin No. 144, issued in 1901 by the department of agriculture, the following statement is made upon these two points: "The hunters know the value of drawing birds as soon as possible after they have been shot, in order to keep them fresh." In an address by Dr. M. Cavana, read at the 14th annual meeting of the New York and New England association of railroad surgeons, the following statements are made:

WHEN DECOMPOSITION SETS IN.

"It is a well established truth that decomposition of organic matter begins the instant that such matter is deprived of life, and that all varieties of decomposing matter contain, to a greater or less degree, chemical and bacterial poison, and that the more advanced the stages of decomposition the more active the qualities of such poisons.

SLOWER IN COLDER CLIMATES.

"In cold atmospheres the process of decomposition is, of course, much slower than in ordinary temperatures, but the process is not fully suspended even by thorough freezing. The great multitudes of sufferers of digestive disorders are victims of toxicosis, or ptomaine poison. Stomach disturbance after eating, colic, nausea, headache, cholera morbus, and most of the attacks of diarrhoea and dysentery are among the conditions traceable to this cause."

SOME FATAL CASES.

"In certain experiences of the writer the toxicosis was of such poisonous quality as to dangerously paralyze the nerve governing the action of the digestive tract, and in each fatal case death was preceded by heart paralysis."

Several examples are given of fatal poisoning from food ptomaine to prove the seriousness of the present food situation. This I have not time to take up here.

BOUGHT AND SOLD BY WEIGHT.

Poultry is usually bought and sold by weight, and in Wyoming commands a price of about 20 cents a pound. It is a well known fact that poultry raisers as a rule precede the slaughter of their marketable stock by liberal feeding, generally on cereals, which fact accounts for the full crops generally found in the birds on the market. The manifest object of this feeding is to give a plump appearance and especially to increase weight. You will all agree with me that 20 cents a pound is a pretty good price to pay for

corn or other grain which may be fed poultry, especially since this must necessarily be wasted.

SHIPPING THE POULTRY.

It is the practice after slaughter of poultry to remove the feathers from the carcass and ship directly to the wholesalers without further dressing. The head and feet, as well as the full crop of partially digested grain and the intestinal tract of filthy and poisonous matter, all combine to make valuable weight, and are, therefore, kept intact. Most of the wholesalers of meat products are also proprietors of cold storage plants, and their stocks are the sources of supply of the great majority of retailers. There is no question but that the domestic fowls are most uncleanly about feeding. They will take into their digestive tract anything and everything in all stages of decomposition.

DR. CAVANA QUOTED.

Quoted from an address by Dr. M. Cavana: "Imagine the probabilities connected with the Thanksgiving turkey and the spring chicken which is quoted upon the menu of our high-class hotels and restaurants every day of the year, their previous storing in a cold but unfrozen state for months, or even years; their craws stuffed with partially digested food in a state of continuous fermentation during this long period; their lung tissues and other delicate internal structures broken down by partial or complete decomposition; their digestive tracts filled with partially digested matter in a state of solubility; their extensive anatomical arrangement for absorption through the numerous vessels and ducts, which extend from the intestinal lining to various portions of the body of the fowl, rendering the absorption of the unclean and poisonous intestinal tract probable rather than possible, and the final crowning act of the wholesaler, that of saturating the partially mummified specimen in fresh water before marketing, thus rendering the distribution of the ptomaines throughout the unclean conglomeration as thorough as could be accomplished by the most studied means.

VICTIMS OF FOOD TOXICOSIS.

The reports of our state boards of health show thousands of deaths from diarrhoea alone in a single year. Without question a very large majority of these fatal cases are victims of food toxicosis. Our laws provide for the most despotic quarantine of Asiatic cholera. Bubonic plague and smallpox, but until recently not a hand was raised in the interest of a movement against the situation which claims more victims each year than the combined contagious diseases mentioned above.

TRUE AS TO FISH ALSO.

Many of the facts which are mentioned in regard to poultry are true in regard to fish and other small animals. It is known to meat men that certain kinds of fish must be thoroughly cleansed if they are to be kept. Who ever knew of a catfish being placed upon the market without the head, intestines and even the skin removed? It is well known that if this is not done immediately, the contents of the intestines will be absorbed by the flesh to such an extent that the meat would not be eatable. In Wyoming a man who would kill a sage chicken and expect to eat it, if he did not immediately remove the intestines, would be thought to be either a tenderfoot or crazy. In fact it is a practice throughout the West to disembowel all wild animals, large or small, immediately after being slaughtered, and the keeping qualities seem to be im-

proved rather than lowered. Sage chickens, if properly dressed and cared for, may be kept in camp from six to eight days without spoiling, and this through the summer months and without the use of ice.

DANGEROUS MEATS.

Returning to the cold storage of poultry, I have just a word to say in regard to the practice of some retailers. Often times poultry is frozen and it may thaw in transit. If this happens, in many cases the retailer refreezes the material upon arrival. Meat which is once frozen and allowed to thaw is dangerous and should not be used for consumption at all unless used immediately. Again poultry is exposed for sale and in time becomes soft, and when this happens it is returned to the cold storage houses to be refrozen. In my own state I have seen this thing happen in a number of cases. Poultry in this condition should be condemned, as it is not fit for consumption.

POULTRY SHOULD BE DRAWN.

The arguments are all in favor of drawing of poultry and keeping it as clean and as careful as you would larger animals, not only for keeping qualities, but for healthfulness and flavor. Every state should have a law upon this subject and the law should be rigidly enforced, as there is no one cause which produces so much unhealthfulness and sickness and even death as tainted meats. Many of these cases are exceedingly sad.

OCULAR DEMONSTRATION.

If it would add to your knowledge of conditions, I would advise you to get a cold storage fowl as they are ordinarily placed upon the market, and draw the entrails. You would probably find something like this. The stench would be so strong that you would wish that you had not begun the operation. By looking closely you would find a greenish florescent appearance up along the back. You would find the intestinal cavity very much discolored. The gall would have permeated the liver to such an extent that in all probability it would not be fit for food. The lung tissue would be very dark in color and very frail, tearing easily.

STRONG EVIDENCE.

It appears that to a civilized people these things alone are evidence enough that that particular specimen of poultry was not fit for consumption, still there are thousands of chickens, ducks and turkeys that are shipped all over the country from cold storage plants and are sold to hotels and restaurants in our cities and hamlets later to be disguised and served up to the unsuspecting public.

TO BE ADDED TO LAWS.

Many of you are fighting to prohibit the use of preservatives and coloring matters in food products and for other things which you believe to be for the benefit of the people, and right here I would advise you to add this, that poultry and small game must be drawn immediately after slaughter if it is to be offered for sale.

"So this is the Brooklyn Bridge. Sure Oi would doive off meself for fifty dollars."

"Oi don't want to see yez get kilt—I'll give ye twenty-foive ave ye doive half way."—Life.

OPENED PACKAGES IN THEIR RELATION TO INSPECTION LAWS.

BY DR. CHARLES D. WOODS.

Director Maine Agricultural Experiment Station.

For the purpose of uniformity of law, Maine, in common with a number of other states, adopted the provisions of the National law, including the guaranty section. The National law contemplates unopened packages. Both criminal prosecution and publicity are the weapons used in Maine to discourage violations of the law and to punish violators. In its operation, this law for all practical purposes is the federal law.

No one thing in our experience gives so much difficulty as the opened package. For example if there is found an opened package the contents of which are adulterated or misbranded, it is a very easy thing to immediately begin prosecution or publicity, or both against the individual or concern where the goods are found. However, if these goods were sold under a written guaranty or even an United States serial number, we hold that the retailer was handling them in good faith. It may therefore be necessary to push the case back to the shipper or still farther to the manufacturer. Both the prosecution and the publicity should, of course, involve not only the man where the goods are purchased, but should in justice and as a means of doing the greatest good, involve the man who wholesaled or manufactured the opened goods which were found adulterated or misbranded. A few simple instances may illustrate more clearly what I have in mind.

The inspector enters a grocery store and purchases a quarter of a pound of ginger from opened goods. From the label upon the box in which the dealer claims the ginger came, he finds the name of the manufacturer, and from inquiry of the dealer, can obtain his statement of the history of the goods. It may be that when this ginger is examined under the microscope that it will be found to contain cayenne. This would at once arouse the suspicion that the highly pungent cayenne had been added to strengthen or reinforce a partially extracted or otherwise adulterated ginger. In the average grocery store, the spice boxes or drawers are arranged side by side; it is one of the commonest mistakes of the grocer or his clerk when he is weighing out a spice for a customer, to throw the half filled scoop back into the drawer; he may make the mistake of throwing a scoop with cayenne into the wrong drawer,—the ginger drawer perhaps. The customer is wronged in getting a ginger carrying cayenne; the grocer is at fault under the circumstances outlined. It would be obviously unjust to publish these results or in any way to throw the responsibility back on the manufacturer of the goods.

Vinegar furnishes another somewhat analagous illustration. In an apple growing section, naturally much of the vinegar is cider vinegar, but under the law, distilled or other vinegars, even artificially colored so as to resemble cider vinegar are allowed if properly branded. It is a common practice for the dealer to draw directly from the barrel. If he carries more than one kind of vinegar, the barrels may be side by side and on end. In such a case a vinegar pump is commonly used to draw the vinegar into the measures. It may be that there is only one pump

for the two or three barrels containing as many kinds of vinegar. One customer may buy a quart of distilled vinegar; the next customer may want cider vinegar. The pump is removed from the distilled vinegar barrel and placed into the cider vinegar barrel; naturally the vinegar furnished is a mixture consisting quite largely of distilled vinegar. In case the pump leathers are not in good order, and the pump runs down, the dealer "catches" the pump with whatever kind of vinegar he may happen to have in the measure, or having no vinegar he may use water. In one instance the vinegar delivered is a mixture; in the other it is watered.

While the retailer is at fault in these instances and should be held responsible, it would be decidedly unfair to attempt either by prosecution or publicity to throw the responsibility back upon the maker of the vinegar.

In Maine articles like vinegar, are, when time is not a factor, frequently shipped by sailing vessels, as transportation is cheaper by water than by land. It may happen that the captain of the coaster is a frugal man. The bung is easily removed; enough vinegar may be taken out to supply the vessel for some little time and replaced by water, not necessarily sea water, and the bung put back as at first. The inspector may find this barrel. To punish the person in whose hands the goods were found or the company whose name appears upon the barrel by fine or by publicity would be unjust. Such are not fancy sketches. Every inspector runs against something like them. They are everyday occurrences in the sale of opened goods.

In connection with opened goods, the substitution of one article for another,—naturally the inferior for the superior—is a great evil. While the druggist is a great sinner in the question of substitution, it is by no means restricted to the drug trade. Much of the grocery business of the country is done by the system of taking orders from house to house and delivering. The housewife may order cream of tartar and she may have given her cream of tartar substitute. She may order sausage and obtain sausage cereal added.

It is not my purpose at this time to attempt solution for the difficulties which arise in the case of opened goods, but to call attention to them with the hope that the matter may be taken up in executive session and some decisions reached as to what should be done with opened goods in connection with prosecutions and publicity. What changes, if any, shall be made in the federal law so that it will be more workable as a retailer's law, or what modifications should be suggested when states adopt the federal law so that when substitution is practiced the people at the home may know it. It is of little value to the consumer if the substituted or adulterated goods are taken from properly labeled packages, unless he shall be advised of the fact that they are substitutes or adulterations.

Cabman (with exaggerated politeness)—"Would you mind walking the other way and not passing the horse?"

Stout Lady (who has just paid the minimum fare)—"Why?"

Cabman—"Because if 'e sees wot 'e's been carrying for a shilling 'e'll 'ave a fit."—Pick-Me-Up.

NITROUS ACID AS AN ANTISEPTIC.

BY PROF. J. H. SHEPARD.

South Dakota State Chemist.

During the past few years, enormous quantities of nitrous acid have been employed in preparing the various grades of flours derived from wheat. Various comparisons between treated and untreated flours have been made and widely differing conclusions have been drawn. There is one aspect of the case however, that has not been thoroughly investigated. Nitrous acid has not been used primarily as an antiseptic. It has been employed as a bleaching agent just the same as sulphur dioxide has been used in bleaching hops and dried fruits. Unfortunately for sulphur dioxide, it lent itself readily to the preservation of fresh meat products. Consequently its antiseptic properties were soon investigated and sulphur dioxide was placed in its proper class along with other powerful chemical preservatives. Thus far nitrous acid has escaped the fate of sulphur dioxide.

Nearly all investigations have been conducted along lines tending to show the effect of nitrous acid on gluten strength, loaf volume, etc., while the antiseptic properties of this chemical have been neglected. Pro-



PROF. J. H. SHEPARD.

fessor Ladd in his paper read before this Association at Jamestown last year stated it as his belief that the use of nitrous acid was harmful and deleterious to the flour. Professor Alway, Bul. 102, Nebraska, concludes that the use of nitrous acid in flours is harmless, basing his belief upon the doctrine of the harmless nature of small quantities of the reagent employed.

But it seemed to the writer that the most satisfactory way of dealing with this problem would be to experiment directly with nitrous acid to determine its effect upon the digestive enzymes themselves. Accordingly during the past year I have planned, and with the aid of my assistant, Mr. Koch, carried out a series of investigations along the lines indicated. I believe the results we have obtained are of sufficient importance to warrant my offering them for the consideration of this Association.

At the outset I wish to state that our work has been very carefully planned and executed and special precautions have been employed to avoid the creeping in of errors.

Our reagents have received special care and many

preliminary trials were made in the different series in order to insure the reliability of the results obtained. The experiments were carried on in glass tubes ranged in series in a special water bath, allowing easy control of temperature. In every series blanks were run in order to eliminate any variations caused by slight variations in temperature or in the activity of the enzymes themselves.

The nitrous acid was prepared by dissolving nitrogen in peroxide in water. The peroxide was obtained by reduction of nitric acid. The peroxide fumes were dissolved in cold water until the solution assumed a decidedly blue color. This strong acid was preserved in a cool place and small portions were diluted with water from time to time as needed. The strength of this dilute solution was determined by titration with standard alkali. The amounts of acid used are expressed in every instance as peroxide.

I am well aware that our acid was not pure nitrous acid, owing to the fact that when nitrogen peroxide comes in contact with water varying proportions of nitrous and nitric acids are produced. But this is just exactly what takes place when the peroxide fumes are used in bleaching flour. There is always sufficient moisture in the flour and in the air to change the peroxide into nitrous and nitric acids. Investigators have agreed that the bleaching is due to the peroxide placing special stress upon the nitrous acid or nitrites formed, disregarding the nitric acid. But we were well content to return the total acidity as nitrous acid, since by so doing we have in every case used less nitrous acid than our figures indicate. Whether the nitric acid is of such small moment or not I do not propose to discuss, but I do believe we have closely approximated the actual conditions prevailing in flouring mills where the peroxide of nitrogen is used. Owing to the fact that the peroxide is a strong anhydride it is almost certain that the first change in the peroxide when liberated in the stress of descending flour is to pass into the acid state and then to attack the flour, forming nitrates and nitrites.

The first experiments were concerned with nitrous acid on diastase and starch. In these experiments exactly 200 mgs air dried corn starch were weighed into each tube, 5 ccs. of water were added and the starch was then cooked to a homogeneous paste. The water bath was kept at 55 degrees c. By experiment the proper amount of the particular diastase used was found to digest a blank in about three hours for Series 1. In Series 2, the diastase was increased so that the blank would digest in about 15 minutes. The reaction was complete when the contents of any tube failed to respond to the iodine test for starch. Beginning with a certain proportion of peroxide to the starch employed, continually decreasing quantities of that chemical were added to the tubes until a point was reached where the delicacy of the method made no distinction between the tube containing the acid and the blank.

TABLE 1.

NITROUS ACID ON DIASTASE AND STARCH.

SERIES 1.				
No. Tube.	Parts NO ₂ to Starch.	Parts NO ₂ to Sol.	Time of Digestion.	Per cent. Retardation Incomp. after 23 hours
1	1 : 25	1 : 3125	Inhibits diges.	
2	1 : 50	1 : 6350	" "	" "
3	1 : 75	1 : 9373	" "	" "
4	1 : 100	1 : 12500	" "	" "
5	Blank	Blank	2 hrs. 55 min.	.....

SERIES 2.

1	1 : 200	1 : 25000	31 min.	121 per cent.
2	1 : 300	1 : 37500	14 min.	.....
3	1 : 400	1 : 50000	14 min.	.....
4	1 : 500	1 : 62500	14 min.	.....
5	Blank	Blank	14 min.	.....

It will be noticed that the third column gives the proportion of peroxide to the solution, thus indicating the dilution of the peroxide. It will be seen that all strengths above 13,500 parts of solution to one of peroxide inhibit digestion.

One part of peroxide to 37,500 and on down digests with the blank. At all intermediate points the peroxide seriously interferes with digestion. These experiments show that nitrous acid is a powerful antiseptic and they were undertaken to throw some light if possible upon the action of this chemical upon the flour itself.

It is a well known fact that wheat flour carries several important enzymes itself. For instance there is an amolytic enzyme which digests the starch and there are several proteolytic enzymes that act upon the proteids and there is now thought to be an erepsin that causes a further degradation of the digestion products of the peptic enzymes.

The advocates of nitrous bleaching claim that the acid simply artificially aids in ripening the flour besides bleaching it. But it is a well known fact that grain cured perfectly dry in the shock, when stacked, undergoes a "sweat" from which the wheat berry emerges much improved for milling. Again when the stacked grain after becoming perfectly dry is threshed and stored in a bin, it undergoes another "sweat" which improves the wheat still further. And finally when this wheat is now milled, if the flour is not treated with chemicals, it undergoes a third "sweat" in the flour. This cycle constitutes the natural curing and ripening process for the grain and flour. But when the flour is treated with nitrous acid this third and last change does not occur. What has happened? The advocates of nitrous acid say the ageing of the flour has been hastened artificially. But let us see. What has caused these "sweats" or fermentations in the natural process of ageing? The nature of the action or effects produced on the berry and on the flour point to the agency of enzymes as the cause of these sweating or ripenings. This being true the addition of nitrous acid to a flour simply paralyzes the enzymes of the flour thus completely preventing the third ripening stage. This process renders the flour just that much more difficult to digest.

But is this all that the acid does to the flour? It is conceded that it unites with the oil which is bleached. It is also thought to combine with the ash constituents, but this action must be slight, since there is no likelihood of its replacing any acid but carbonic and phosphoric. The sulphates and chlorides would resist its action effectively.

But it is not so certain that the starches and proteids of the flour would escape some damage by the action of the nitric acid and nitrous acid fumes. It is well known that nitric acid breaks up starch and generates oxalic acid, a deadly poison. Again it is well known that nitrous acid disintegrates the proteids to a certain extent. Thus, Mana, Chemistry of The Proteids, p. 96, concludes that when proteids are treated with nitrous acid the amide compounds remain unaltered or slightly increased, while the total nitrogen is diminished. But the acid compounds have little or no nutritive value. Whence then this loss

of nitrogen if not from the digestible and nutritious albuminoids? Or in other words the nutritive albuminoids are lessened in quantity by the use of nitrous acid. But we must pass on to the digestive enzymes of the human system and see to what extent they tolerate the presence of nitrous acid.

NITROUS ACID ON PTYALIN AND STARCH.

When food is taken into the mouth and masticated, it is mixed with saliva which carries a very energetic enzyme, ptyalin, which converts starch into reducing sugars. In the following experiments one grain of starch was cooked to a smooth paste with 40 cc. water in a sugar flask and five ccs. of tenth normal saliva were added and the bath was kept at 40 degrees c. The time of digestion was exactly five minutes. At the expiration of that time each flask was filled to the mark with 95 percent alcohol, cooled to room temperature, filled to the mark again, filtered and polarized in a 300 mm tube using a Franz, Schmidt & Haenzel polariscope giving readings in percentages of cane sugar. These readings were used in obtaining comparisons since we found them more reliable than the iodine and reaction. While a great number of determinations were made I shall give one series only:

TABLE 2.

NITROUS ACID ON PTYALIN AND STARCH.

No. Flask.	Parts NO ₂ to Starch.	Parts NO ₂ to Sol.	Reading of Polariscope.	Per cent Retardation.
1	1 : 100	1 : 45000	0.0	Inhibits digestion
2	1 : 150	1 : 67500	0.6	" "
3	1 : 200	1 : 90000	4.0	43 per cent.
4	1 : 250	1 : 112500	3.6	48 per cent.
5	1 : 300	1 : 135000	6.0	14 per cent.
6	1 : 500	1 : 225000	7.0	.....
7	1 : 1000	1 : 450000	7.0	.....
8	Blank	Blank	7.0	.....

From the foregoing table it will appear that one part of nitrous acid to 67,500 prevents digestion entirely. Between that proportion and 1:155,000 digestion is seriously delayed. No ordinary chemical preservatives equals nitrous acid in its antiseptic properties. It might be objected by some that the time of digestion was too short. So I will select two results from another series. Semi-normal saliva was used, the acid was 1:25,000 solution and the time was 30 minutes. The reading of the polariscope was 0.0, while the accompanying blank gave a reading of 7.2 percent. The short time of digestion and the dilute solution of saliva were chosen on account of the vigor and rapidity with which ptyalin acts.

NITROUS ACID ON PEPSIN AND EGG ALBUMEN.

When food enters the stomach it comes in contact with the gastric juice which carries a powerful enzyme, pepsin which digests the albuminoids. Much work was done with nitrous acid and pepsin. Boiled white of eggs which had been finely divided by rubbing through a forty mesh sieve was the albumen used and of which 2 grams were used in each trial. A solution of pepsin in water carrying two-tenths percent hydrochloric acid was made so that 25 ccs of the solution should carry just 4 mgs. of pepsin. 25 ccs. of this solution at about 40 percent c. was used in each trial. I deem this work so important that two series will be given:

TABLE 3.

NITROUS ACID ON PEPSIN AND EGG ALBUMEN.

SERIES 1.

No. Tube.	Parts NO ₂ to Albumen.	Parts NO ₂ to Solution.	Time of Digestion.	Per cent. Retardation.
1	1 : 25	1 : 312	4 hrs.	330%

2	1 : 50	1 : 625	3 hrs. 46 min.	318%
3	1 : 100	1 : 1250	2 hrs. 2 min.	121%
4	1 : 200	1 : 2500	1 hr. 20 min.	45%
5	1 : 300	1 : 3750	Broken	
6	1 : 400	1 : 5000	1 hr. 5 min.	16%
7	1 : 500	1 : 6250	1 hr. 55 min.	66%
*8	1 : 500	1 : 6250	1 hr. 45 min.	90%
**9	1 : 500	1 : 6250	2 hrs. 5 min.	81%
10-11	Blanks for Nos. 1 to 6 & 8		55 min.	....
12-13	Blanks for Nos. 7 & 9		1 hr. 9 min.	....

*Tube corked.

**Acid direct.

SERIES 2.

1	1 : 1000	1 : 12500	1 hr. 20 min.	33%
2	1 : 2000	1 : 25000	1 hr. 17 min.	28%
3	1 : 3000	1 : 37500	1 hr. 5 min.	8%
4	1 : 6000	1 : 75000	1 hr. 5 min.	8%
5	1 : 8000	1 : 100000	1 hr. 15 min.	25%
6	1 : 16000	1 : 200000	1 hr.	.....
7	1 : 20000	1 : 250000	1 hr.	.....
8-9	Blanks	Blanks	1 hr.	.....

The foregoing table speaks for itself. When an antiseptic can make itself manifest in proportions of 1:100,000 it certainly no fit ingredient in any item in the human dietary. Nitrous acid is rivaled only by hydrofluoric acid as an antiseptic.

But there are some things that the table does not show. In Series 1 the acid gave a marked Xanthoproteic reaction with the albumen, which was colored a pronounced yellow. At all times during the digestion fumes of nitrous acid were given off and in the cases of the first numbers in the series practically no digestion took place during the first hour. Not until the nitrous acid was nearly eliminated did the digestion proceed, when it progressed rapidly.

So marked was this phenomenon that we corked tube 8 with a tightly fitting rubber stopper, and although there was considerable space about the liquid where the nitrous fumes could collect, the digestion was retarded 4 percent as compared with 7, an open tube.

Tube 9 has a bearing on the union of the acid with albumen. In all the other tubes the acid was added to the tubes after all the other ingredients. In this one the acid was added direct to the albumen. After a short time the pepsin solution was poured in and the digestion begun. This tube shows a retardation of 15 percent as compared with a regular open tube. From this one might reasonably expect that nitrous acid added direct to flour would produce more profound disturbances than our results would indicate.

In Series 2, it is to be regretted that a series of tubes was not prepared between 100,000 and 200,000 in order to find the limit where the nitrous acid ceased to manifest itself with the method employed. Especially is this true since tube 5 for some unaccountable reason gave results apparently higher than would be expected from the behavior of the preceding tubes. We will next take up the enzymes of pancreatin.

NITROUS ACID ON PANCREATIN AND STARCH.

After leaving the stomach the food is brought into contact with the pancreatic juice which carries several active enzymes capable of digesting all the nutrients of food. The enzymes are called collectively pancreatin. In the experiments made pancreatin was allowed to act on starch.

One gram of starch was placed in a sugar flask and cooked to a smooth paste with 50 ccs. of water. 500 mgs. of pancreatin were added and the digestion was carried on for just 30 minutes at a temperature of 40 degrees c. The flasks were then filled with 95

percent alcohol to stop the action of the enzymes. cooled, etc., as in the case of ptyalin. The readings of the polariscopes were taken for comparisons. I will give one series.

TABLE 4.

NITROUS ACID ON PANCREATIN AND STARCH.				
No. Flask.	Parts NO ₂ to Starch.	Parts NO ₂ to Solution.	Reading of Polariscope.	Per cent. Retardation.
1	1 : 25	1 : 1250	0.0	Inhibits digestion
2	1 : 50	1 : 2500	0.0	" "
3	1 : 100	1 : 5000	0.0	" "
4	1 : 200	1 : 10000	0.0	" "
5	1 : 300	1 : 15000	1.4	80 per cent.
6	1 : 400	1 : 20000	1.4	80 per cent.
7	1 : 500	1 : 25000	1.2	82 per cent.
8	1 : 700	1 : 35000	1.5	78 per cent.
9	1 : 1500	1 : 75000	1.6	76 per cent.
10	1 : 1750	1 : 87500	5.0	26 per cent.
11	1 : 2000	1 : 100000	5.3	22 per cent.
12	1 : 2500	1 : 125000	5.6	17 per cent.
13	1 : 3000	1 : 150000	6.8	.....
14	1 : 5000	1 : 250000	6.8	.....
15	Blank	Blank	6.8	.....

This table confirms the results obtained with the other enzymes and proves that the enzymes of pancreatin are seriously affected by nitrous acid. Any chemical in dilution of one part to one hundred thousand which will retard digestion nearly 25 percent should not be permitted in any food product in any quantity whatever. And more especially is this true in the case of flour which is eaten in one or more forms three times a day and 365 days in the year and all the years of a man's life.

In conclusion it might be well enough to make some general strictures upon the bleaching process. Alway (loc. cit.) has found varying quantities of nitrite in bleached flours averaging 6.3 parts per million. But in many instances the amount reached 10, 20, and in a few cases 30 parts per million. But 10 parts per million is the same as one part in 100,000. 20 parts per million is the same as one part in 50,000. An inspection of the tables will show that nitrous acid is capable of doing much mischief at those dilutions. It is true that Alway reported nitrite as sodium nitrite. But it is also true that he made no allowances for nitric acid or nitrates. In our work the latter acid was taken into consideration. Hence the figures are fairly comparable.

One thing further must be said in this connection, and that is, this nitrite is not eliminated in the baking. While it is apparently diminished, there is no certainty that it is actually diminished. It may be so held that the usual analytical process fails to extract it from the bread. I have been able to recover from one-half to one-third of the nitrite in bread that was carried by the flour from which the bread was made. But even if one-half of the nitrite is lost in baking it does not help the matter much.

What reasonable man can say that this constant and insistent dosing of the human system with such a powerful antiseptic as nitrous acid in any quantity whatever is a wholesome and hygienic practice? Is it not about time that the American people took steps so effective that bread, the staff of life, may come on the table pure and free from poisonous chemicals?

And then again, who said that the best bread should be white? What great and eminent physician or hygienist has said that the health-giving and muscle-building qualities of bread are indexed and augmented by an increasing scale of whiteness? Once again I ask, who has said it? You may depend upon it that even Echo will hang her head in shame and refuse to

answer. Whiteness is indicative of starch. Starch is cheaper and more plentiful in potatoes. Protein is characterized by a yellowish tint. Bread, the universal food of this nation is and should be valued for its protein content.

Or is this whiteness in bread simply another phase of the color craze which has swept over the country? If so, and if the "trade" demands white bread, why not be sensible and drop dangerous chemicals and bleach the dough instead by aeration? This is both practical and feasible. Even every housewife may have a bread mixer if she will that will take natural flour and by forcing air through the dough produce the desired shade or degree of whiteness.

The addition of nitrous acid to flour is not only useless from a hygienic and dietetic standpoint, it is dangerous. Old and young, strong and weak, well and sick all depend upon bread and they should have it without any poisonous chemicals. It is not contended here that bleached flour carries nitrous acid in toxin doses, but it is contended that there is sufficient nitrite present to retard digestion, and to make it a constant menace to health. Such things beget indigestion and a host of minor ills that tend to sap the vital energies of the consumer and render him an easy prey to prevalent diseases and epidemics.

Nitrous acid is a vicious antiseptic and any course of reasoning that will permit its use will also permit the use of any or all the other chemical antiseptics known.

THE NEW KENTUCKY FOODS AND DRUGS ACT.

BY PROF. M. A. SCOVELL.

Director Kentucky Agricultural Experiment Station.

The General Assembly of the Commonwealth of Kentucky at its recent session passed a new act for preventing the manufacture and sale of adulterated or misbranded foods, drugs, medicines and liquors, and provided penalties for violation thereof.

Both Mr. Allen and I gave this act careful consideration. Hearings were had by all parties at interest so far as possible, before the bill was presented to the legislature. It did not meet opposition in the legislature. The law, I believe, protects the consumer, the seller and the manufacturer alike in its operations. It provides:

1. Against the manufacture or sale of any adulterated or misbranded article of food or drug. An adulterated article, however, but not one misbranded, may be sold under certain conditions. These conditions are, first, that it does not contain any added poisonous or deleterious ingredient. Second, that it does not contain any filler or ingredient which debases without adding food value. Third, that it is not colored, or fixed in any way so as to conceal damage or inferiority, or if it is not colored or flavored in imitation of the genuine color or flavor of another substance of a previous established name. Fourth, if it does not contain an antiseptic or preservative. Fifth, if it does not consist of or is not manufactured from a diseased, contaminated, filthy or decomposed substance, or any substance produced or kept in a condition that would render the article diseased, contaminated or unwholesome, or if it is not any part the product of a diseased animal, or the product of an animal that has died otherwise than by slaughter; or that has not been fed upon the offal from a slaughterhouse. Sixth,

if it is not the milk from an animal fed upon a substance unfit for food for cows or from an animal kept and milked in a filthy or a contaminated stable or in surroundings that would render the milk contaminated.

It will be seen, therefore, that an article of food may be mixed with another article of food of lesser food value provided that each of the articles in such mixed foods is of food value in itself. But the law provides that in all such cases the mixture shall be labeled so as to show its exact character.

2. The law defines the term food to include every article used for or entering into the composition of food or drink for man or domestic animals including all liquors. And the term drug to include all medicines and preparations recognized in the latest revisions of the United States Pharmacopoeia or National Formulary for internal or external use, and any substance intended to be used for the cure, mitigation or prevention of diseases either of man or other animal, and shall include *paris green* and all other insecticides and fungicides.

It defines misbranded and adulterated articles of foods and misbranded and adulterated articles of drugs in the general terms of other food laws. It is well, however, to note some additions thereto. In the case of adulterated articles of food, paragraph 6 of section 4 is more stringent and reads as follows:

"If it consists of or is manufactured from in whole or in part of a diseased, contaminated, filthy or decomposed substance, either animal or vegetable, unfit for food, or an animal or vegetable substance produced, stored, transported or kept in a condition that would render the article diseased, contaminated or unwholesome, or if it is any part the product of a diseased animal, or the product of an animal that has died otherwise than by slaughter, or that has been fed upon the offal from a slaughterhouse, or if it is the milk from an animal fed upon a substance unfit for food for dairy animals or from an animal kept and milked in a filthy or a contaminated stable or in surroundings that would render the milk contaminated."

It will be noticed that the product of an animal that has been fed on the offal from a slaughterhouse is considered adulterated under our law, or that milk is adulterated if the animal producing it be fed on unwholesome food or if the animal is kept or milked in a filthy or contaminated stable, or if the surroundings of the dairy are such as might contaminate the milk.

In the case of misbranded foods, paragraph 3 of section 3 reads as follows:

"If in the case of certified milk, it be sold as, or labeled 'certified milk,' and it has not been so certified under rules and regulations by any county medical society, or if when so certified it is not up to that degree of purity and quality necessary for infant feeding."

The object of this, of course, is to prevent certified milk from being sold which does not come up to what physicians consider wholesome milk for infant feeding.

Under misbranding, paragraph 4 is added which is:

"If it be misrepresented as to weight or measure or, if where the length of time the product has been ripened, aged or stored, or if where the length of time it has been kept in tin or other receptacle tends to render the article unwholesome, the facts of such

excessive storage, ripening, ageing or packing are not plainly made known to the purchaser and to the consumer."

3. Thirty thousand dollars is appropriated for carrying out the provisions of the law. May I call your attention as to the various ways the money may be used. It may be used for the analysis or examination of any sample of food or drug taken or submitted in accordance with the act; for expenses for procuring samples of food or drugs; for making inspections into the condition of and wholesomeness and purity of food produced, manufactured or sold in food factories, grocery stores, bakeries, slaughtering houses, dairies, milk depots or creameries, and all other places where foods are produced, prepared, stored, kept or offered for sale; for expert witnesses attending grand juries and courts; and clerk hire. It may also be used for studying the problems connected with the production, preparation and sale of foods, and, finally, it may be used for all other expenses necessary for carrying out the provisions of the act. As stated above some of the moneys appropriated may be expended in studying the problems of sanitation and problems connected with the production of foods. This provision, I believe, is wise, for there are many investigations which need to be undertaken in connection with food inspection if the work is to be done on a high and broad plane.

4. The law provides that the Director of the Kentucky Agricultural Experiment Station or under his direction, the Head of the Division of Food Inspection of the Experiment Station, shall have charge of the enforcement of the law, and gives him power to make or cause to be made all analyses of samples taken by the inspectors or by the State Board of Health, the State Board of Pharmacy, by any state, county, or city attorney. It gives the director power to appoint the necessary help to carry out the provisions of the act. It gives him or agents under his direction free access, at all reasonable hours, into places wherein any food or drug product is being produced, manufactured, prepared, kept or offered for sale, for the purpose of determining as to whether or not any of the provisions of the act are being violated. Any agent, upon tendering the market price of any article, may take a sample for examination.

5. Under certain restrictions the Director is empowered to adopt and fix standards of purity, quality and strength. These restrictions are: *First*, if they are not already fixed in the law or by statute. *Second*, that all standards fixed by him shall be first published for the information and guidance of the trade. *Third*, if any standard differs from the legally adopted standards of the United States Department of Agriculture, the Director shall arrange for a conference between the proper food control representatives of the United States Department of Agriculture, the said Director and the representatives of the trade to be affected, for the purpose of agreeing on, if possible, a uniform standard. *Fourth*, in case of dispute the validity of any standard adopted by the Director may be determined by the courts under the rules of evidence. *Fifth*, when the Supreme Court of the United States has passed on any standard or nomenclature for any food product, such standard or nomenclature shall govern. *Sixth*, all rulings pertaining to sanitation under the act shall be collaborated in connection with the State Board of Health. A committee consist-

(Continued on page 21.)

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INSULT TO SECRETARY WILSON PRINTED IN ADVANCE OF OFFICIAL PUBLICATION OF PROCEEDINGS.

John Wiley and Sons, who were given the exclusive privilege of publishing the proceedings of the Association of State and National Food and Dairy Departments will not be overjoyed to learn that Secretary R. M. Allen has just published in pamphlet form the resolutions adopted by that Association together with the personnel of committees, etc. Just what form of contract the publishing company has with the Association or its secretary is evidently a private matter, at least it has never been made public.

On the part of the Association, however, it evidently requires, as judged by the methods of conducting conventions, that no newspaper men or reporters are to be permitted to take notes of even the open meetings and that all important discussions of papers and all business be transacted in executive session with all the secretiveness of the Society of the Black Hand. But with all these precautions to secure priority of publication it is said that the publishers of the proceedings have not received much financial encouragement. In fact, the members of the Association have been asked to subscribe for a certain number of books in order to help the publishers out of the hole. With this situation it would seem that even if not expressly stipulated in the contract, the secretary of the Association would give the firm who have so generously undertaken the project all the prestige that would belong to the official proceedings, instead as he has done of printing and circulating the cream of the proceedings in advance of the regular publication.

However, emergency cases call for heroic treatment. The resolution adopted by the Association, at the behest of Dr. Wiley and his underlings, of whom Secretary Allen at times crowds into the front rank, contained a gratuitous insult to the Secretary of Agriculture. And why? Because, as we explained in last month's issue, he is attempting to enforce within his power and duties the Food and Drugs Act of June 30, 1906, which passed both houses of Congress and was signed by the President, instead of an act which was introduced in Congress but failed to become a law. These resolutions, to use a favoriteism of Allen, must be "exploited." They must be given official prestige and sent broadcast where those unfamiliar with the situation may get the impression

that the Secretary of Agriculture was not doing his full duty under the law. He would thus satisfy both faction of the food commissioners and his own personal grudge at not obtaining a job in the Department of Agriculture notwithstanding the influence of his great and good friend, the Chief of the Department of Chemistry.

But the attack, although malignant in purpose, will fail of its object. It is not a big stick and curved at that—a boomerang which will fly back to the man who threw it.

The Secretary of Agriculture stands too firm in the hearts of his countrymen to be disturbed by the disappointed office-seekers with toy tomahawks, or the officials who hold that the National food laws were passed for their especial pecuniary benefit.

COLD STORAGE.

Commissioner Burke of Wyoming struck a responsive chord in Mackinac on the drawn poultry and cold storage subject. Nothing so illustrates and emphasizes a pure food topic like a three days' siege of ptomaine poisoning. From all over the country comes reports of serious digestive disturbances from eating storage products, principally fowl and fish. Three or more causes may be assigned: First, unsound products being placed in storage. Second, improper warehouse conditions as regards temperature, moisture, thawing and freezing, etc. Third, undrawn animals. Fourth, time of keeping. It is admitted that at present there is scarcely enough evidence at hand to say to a certainty just what cause most frequently operates to make cold storage goods unwholesome and dangerous to health and even a serious menace to life but the results warrant governmental control of this industry. Every cold storage warehouse should be required to take out a license of not less than \$100 per year. Regulations should be adopted as to the quality of goods placed in storage, conditions of storage, and the length of time each class of goods should be allowed to be carried before again being placed on the market. Inspectors under the control of the city board of health or the food commission should be appointed, whose business it should be to know that the regulations of the city or state were carried out, and the ordinance or law should carry sufficient penalties to deter the tricky or dishonest dealer from disobeying it.

Just what the regulations should be may be a matter of local sentiment. No doubt the question of the superiority of drawn or undrawn poultry will be quickly settled when the benefit of one or the other methods of handling are shown in practice under public regulations. As to the length of time of holding this class of food it would appear that one year should be the maximum time that fowl or flesh be allowed in storage before marketing. The sun has then completed its cycle. A spring chicken may be a spring chicken until a new crop can be grown under exactly similar conditions. Prices have varied with conditions and returned to near the starting point. No legitimate excuse can be offered for holding a product in storage longer. It is regrettable that the cold storage people are attempting to fight all police regulation of their business in the interest of public health. It is a mistake. Every consideration—financial as well as moral—should impel the cold storage people to place their product beyond criticism and high in public confidence and esteem.

MEAT PACKERS' CONVENTION.

The American Meat Packers' Association will hold its second annual convention at the Grand Pacific Hotel, Chicago, October 12, 13 and 14. The convention held in the same city last year was a grand success from every standpoint. This year's convention will be even larger as fully 500 delegates will be in attendance. Practically every large packing concern in the country is represented in the membership of the association. The public have been led to believe that the packers were averse to governmental regulation of their business. Such was not the case. They were most desirous of the strictest supervision and the guarantee of purity issued by the government. They were opposed to some of the methods employed in bringing the subject before Congress and the people and to some of the regulations advocated by the jingoists and jungleites which lost them millions of dollars in foreign trade. But the benefit of the government guarantee at home has nearly made up the loss abroad and the packers are ready to forget and forgive. President Roosevelt and Secretary Wilson have been invited to attend the convention, and the fullest co-operation between the government and packers in order to hold up the highest grade of meat will be the keyword of the coming convention.

NEW BRITISH PATENT ACT.

The new act which became operative on the 28th of last month requiring patents taken out in that country to be manufactured within the country within one year of date of issue will cause many American and German manufacturing concerns to establish branches in England and undoubtedly work to the benefit of English laboring classes, at least for a time. However what is good for England should be good for other countries also, and America and Germany and the other world powers should require Englishmen to operate their foreign patents in foreign countries. When this is done all around the situation will be much the same as it was before the new patent act was in force. What England would gain at one end she would lose at the other. Retaliatory legislation is the only way to reach the hog in international affairs.

CANADIAN BULLETIN ON MAPLE SUGAR.

Bulletin No. 157 of the Laboratory of the Internal Department, Ottawa, Canada, deals with maple products. Seventy-one samples of maple syrup and seventy-one samples of maple sugar were examined. Of the sugars sixty-two were classified as genuine; eight as adulterated and one as doubtful. Of the syrup, three were declared compounds; 62 genuine and six adulterated. The percentage of adulterated samples that is maple products mixed with other sugars and syrups is gratifyingly small and the adulteration in syrup is even less than in the solid sugars.

The report is signed by A. Mc Gill, Chief Analyst.

WILSON FOR UNITED STATES SENATOR.

Secretary of Agriculture James Wilson is being talked of as the candidate of the stand patters for senator to succeed Senator Allison. Governor Cummings made a try at it before the legislature and failed. Secretary Wilson will probably want to be consulted before elected to the position or drawn into the canvass.

NEW GOVERNMENT LABORATORY AT ST. LOUIS.

A United States Food and Dairy Laboratory is to be opened up on the eighteenth floor of the Wright building, St. Louis, with F. W. Siefner in charge. Mr. Siefner, according to the papers, has been a chemist six years, a part of the time as instructor in the University of Missouri and later with the Bureau of Chemistry, Washington, D. C.

CONFERENCE OF STATE FOOD OFFICIALS.

Pres. J. Q. Emery of the Association of State and National Food and Dairy Departments has called a meeting of the Food Commissioners of the middle and Northwestern states to be held in Madison, Wisconsin, beginning Sept. 29, for the purpose of making uniform rules and regulations and standards for these states.

WORLD'S PURE FOOD EXPOSITION.

The next World's Pure Food Exposition will be held in the Coliseum, November 18-28. The Chicago Grocers' and Butchers' Association and others are backing it to insure the success of the undertaking.

BRITISH HONEY PRODUCTION.**Active Cornwall Industry Affords Opening for Apiary Supply**

Reporting from Plymouth, Consul Joseph G. Stephens says that during the past three years a great advance has been made in honey production concerning which he writes:

The best honey-producing county in England, Cornwall, was the first to engage the service of an expert in bee keeping. The result of this supervision and experiment has worked a vast commercial benefit to the Duchy. Three years ago "foul brood," an infectious disease among bees, attacked the apiaries of Cornwall and worked great destruction. Had it not been for the forced destruction of hundreds of hives there would have been an end to the industry.

With the view of making bee keeping a wide and thriving industry, the authorities have instructed their expert inspector to visit all bee keepers in the county, examine the hives kept by them, and to give advice as to their condition and management. It is also the duty of the inspector to work up markets for the product in all parts of the country. Experiment are being carried on at the experimental apiary at St. Erth in connection with the perfecting of fruit and seeds for honey and the production and breeding of queen bees.

This year so far has been a record one for the production of honey and no part of England possesses better advantages in this respect than Cornwall, owing to the extensive tracts of heath and clover flowers. There is a very marked increase in the number of people engaged in this business and scores of people are making as much as \$500 a year from their bees.

Now that the public are so interested in bee keeping is a favorable time for American merchants to introduce into this district the modern bee hives and bee-keeping appliances. Thousands of old-fashioned straw skips must be replaced by wooden hives. There is also room for many other improvements in the methods now being employed. The people are being educated along these lines by able officials interested in the industry and would be disposed to purchase the best appliances obtainable. American manufacturers interested should communicate with a dealer whose name is forwarded [and obtainable from the Bureau of Manufactures].

**ROYAL COMMISSION ON WHISKEY AND OTHER
POTABLE SPIRITS—INTERIM REPORT OF THE
ROYAL COMMISSION ON WHISKEY AND
OTHER POTABLE SPIRITS—PRE-
SENTED TO BOTH HOUSES OF
PARLIAMENT BY COM-
MAND OF HIS
MAJESTY.**

Edward, R. & I.

Edward the Seventh, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas King, Defender of the Faith, to—

Our right trusty and well-beloved Councillor Henry, Baron James of Hereford, Knight Grand Cross of Our Royal Victorian Order; and

Our trusty and well-beloved—

Laurence Nunns Guillemard, Esquire, Companion of Our Most Honorable Order of the Bath, Deputy Chairman of the Board of Inland Revenue;

Walter Ernest Adeney, Esquire, Doctor of Science, Fellow of the Chemical Society;

John Rose Bradford, Esquire, Doctor of Medicine, Doctor of Science, Fellow of the Royal Society;

Horace Tabberer Brown, Esquire, Doctor of Laws, Fellow of the Royal Society;

George Seaton Buchanan, Esquire, Doctor of Medicine, Inspector of Foods to the Local Government Board of England;

John Young Buchanan, Esquire, Master of Arts, Fellow of the Royal Society; and

Arthur Robertson Cushny, Esquire, Doctor of Medicine, Master in Surgery, Fellow of the Royal Society; Greeting:

Whereas, We have deemed it expedient that a commission should forthwith issue to inquire and report:

I. Whether in the general interest of the consumer, or in the interest of the public health, or otherwise, it is desirable—

(a) To place restrictions upon the materials or the processes which may be used in the manufacture or preparation in the United Kingdom of Scotch whisky, Irish whisky, or any spirit to which the term whisky may be applied as a trade description;

(b) To require declarations to be made as to the materials, processes of manufacture or preparation, or age of any such spirit;

(c) To require a minimum period during which any such spirit should be matured in bond; and

(d) To extend any requirements of the kind mentioned in the two subdivisions immediately preceding to any such spirit imported into the United Kingdom.

2. By what means, if it be found desirable that any such restrictions, declarations or period should be prescribed, a uniform practice in this respect may be satisfactorily secured:

and to make the like inquiry and report as regards other kinds of potable spirits which are manufactured in or imported into the United Kingdom.

Now know you that we, reposing great trust and confidence in your knowledge and ability, have authorized and appointed, and do by these presents authorize and appoint you, the said Henry, Baron James of Hereford (Chairman); Laurence Nunns Guillemard, Walter Ernest Adeney, John Rose Bradford, Horace Tabberer Brown, George Seaton Buchanan, John

Young Buchanan, and Arthur Robertson Cushny, to be our commissioners for the purposes of the said inquiry.

And for the better effecting the purposes of this our commission, we do by these presents give and grant unto you, or any three or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this our commission; to call for information in writing; and also to call for, have access to and examine all such books, documents, registers and records as may afford you the fullest information on the subject, and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And we do by these presents authorize and empower you, or any of you, to visit and personally inspect such places as you may deem it expedient so to inspect for the more effectual carrying out of the purposes aforesaid, and to employ such persons as you may think fit to assist you in conducting any inquiry which you may hold.

And we do by these presents will and ordain that this our commission shall continue in full force and virtue, and that you, our said commissioners, or any three or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

And we do further ordain that you, or any three or more of you, have liberty to report your proceedings under this our commission from time to time if you shall judge it expedient so to do.

And our further will and pleasure is that you do, with as little delay as possible, report to us, under your hands and seals, or under the hands and seals of any three or more of you, your opinion upon the matters herein submitted for your consideration.

And for the purpose of aiding you in your inquiries we hereby appoint our trusty and well-beloved Aubrey Vere Symonds, Esquire, of the Local Government Board, to be secretary to this our commission.

Given at our court at St. James', the 17th day of February, 1908, in the eighth year of our reign.

By His Majesty's command.

H. J. GLADSTONE.

**Royal Commission on Whiskey and Other Potable
Spirits.**

INTERIM REPORT.

To the King's Most Excellent Majesty. May It Please Your Majesty:

We, the commissioners appointed by Your Majesty on the 17th of February, 1908, to inquire and report:

I. Whether, in the general interest of the consumer, or in the interest of the public health, or otherwise, it is desirable—

(a) To place restrictions upon the materials or the processes which may be used in the manufacture or preparation in the United Kingdom of Scotch whisky, Irish whisky, or any spirit to which the term whisky may be applied as a trade description;

(b) To require declarations to be made as to the materials, processes of manufacture or preparation, or age of any such spirit;

(c) To require a minimum period during which any such spirit should be matured in bond; and

(d) To extend any requirements of the kind men-

tioned in the two subdivisions immediately preceding to any such spirit imported into the United Kingdom:

availing ourselves of Your Majesty's permission to report our proceedings to Your Majesty from time to time if we should think it expedient to do so, desire to submit to Your Majesty the following preliminary report.

We have held 22 sittings and examined 74 witnesses. Certain of the commissioners have visited distilleries in Scotland and Ireland, and have thereby obtained much valuable information.

Whilst the labors of the commissioners are by no means terminated, we have arrived at certain conclusions, which we now humbly submit to Your Majesty as follows:

1. That no restrictions should be placed upon the processes of, or apparatus used in, the distillation of any spirit to which the term "whisky" may be applied as a trade description.

2. That the term "whisky" having been recognized in the past as applicable to a potable spirit manufactured from (1) malt, or (2) malt and unmalted barley or other cereals, the application of the term "whisky" should not be denied to the product manufactured from such materials.

We reserve for further consideration the question of the advisability or otherwise of attaching special significance to particular designations such as "Scotch Whisky," "Irish Whisky," "Grain Whisky," and "Malt Whisky"; of placing restrictions upon the use of such designations as trade descriptions; or of requiring such designations to be used in connection with the sale of whisky.

We ask Your Majesty's permission to postpone stating in full the grounds upon which we have arrived at the above conclusions until we submit our final report upon all the matters referred to us.

We also submit to Your Majesty the minutes of evidence given before us.

We think that the immediate publication of this report is desirable.

All of which we most humbly submit to Your Majesty's most gracious consideration.

(Signed) JAMES OF HEREFORD, Chairman.

L. N. GUILLEMARD.

W. E. ADENEY.

J. R. BRADFORD.

HORACE T. BROWN.

G. S. BUCHANAN.

J. Y. BUCHANAN.

ARTHUR R. CUSHNY.

AUBREY V. SYMONDS, Secretary.

June 24, 1908.

ACTIVITY IN KANSAS COURTS.

Friends of THE AMERICAN FOOD JOURNAL connected with the Kansas Pure Food Department send an account of the month's happenings in cleaning the food markets of Kansas.

Charged with Hauling Uncovered Meats.

The first arrest by the State Pure Food Department under the law requiring that fresh meats be covered while being hauled from place to place was made last week at Junction City. In fact, there were two arrests

and two convictions. F. C. Coryell was convicted and fined \$20 and costs and his helper, A. Bisheimer, was fined \$10 and costs. The sentences were imposed by Judge Dinsmore of Junction City. The complaint was sworn to by Inspector John Kleinhans under Chapter 187, Laws of 1907, which is as follows:

"That every dealer in slaughtered fresh meats, fish, fowl, or game, for human food, at wholesale or retail, at any established place, or as a peddler, in the transportation of such food from place to place to customers shall protect the same from dust, flies and other vermin or substance which may injuriously affect it, by securely covering it while being so transported."

Many butchers do not know that the law prohibits this, but the conviction of these two men should be a warning to other dealers who have not carefully studied the pure food law.

(The most important conviction under the Kansas or any other state pure food law.—Ed.)

Boys Arrested for Selling "Phoney" Honey.

Under the pure food law artificial honey cannot be sold in Kansas as the natural product of bees. Two boys, Harry and Landsing Brace, tried this in Fort Scott and are now under arrest. The boys came into town as strangers and immediately began manufacturing the honey and peddling it over town as pure bees' honey. They made the mistake of trying to sell some of it to A. G. Pike, pure food inspector. He knew the law and knew pure honey from artificial honey, so placed the boys under arrest instead of buying their product.

(Were not the boys entitled to expert evidence, or are the inspectors better qualified to pass on the purity of food than the Kansas chemists.—Ed.)

Watered Milk.

F. Claussen, of Marriam, Kan., was last week charged in the District Court of Johnson county of selling adulterated milk by the Pure Food Department. His attorney appeared for him in court and entered a plea of guilty, and defendant was sentenced to pay a fine of \$10 and costs of prosecution.

The analysis showed the milk sold by Claussen to contain 3.05 per cent fat and 8.95 per cent solids, which showed water had been added.

The Kansas State Food Department has certified fifteen milk cases for prosecution to the county attorney of Wyandotte county. Under the Kansas law, milk must contain 3.25 per cent butter fat.

Food Products Taken from Original Packages Must Be Labeled

In Judge Davidson's court, Abilene, Kan., the Solomon Drug Co., also the Montezuma Hotel Restaurant Co., were fined \$20 each and costs on complaint of Inspector John A. Kleinhans, of the state food department, for not having properly labeled their crushed fruits and syrups, which had been taken from the original packages and displayed at their fountains, as required under Regulation 34, Kansas food and drug law, which reads as follows:

"When food products are taken from the original packages and exposed for sale, these food products shall be accompanied by a copy of the label of the original package, conspicuously displayed."

The crushed fruits and syrups being used were manufactured by Beach & Clarridge Co., Boston, Mass., and the original packages and jars were labeled as containing one-tenth of one per cent benzoate sodium, also as containing artificial color.

SOUTH DAKOTA BULLETIN.

With a clear understanding on the part of the retailers, jobbers, and manufacturers of what is required under the Food and Drug Laws of South Dakota, we are having very little trouble in the enforcement of the law. We find that the reputable manufacturers of good products, as a rule, are anxious and willing to comply with the laws when they understand their requirements. We have had in the past some difficulty with the meat and fish packers in regard to the use of preservatives in their products and are still having more or less trouble with sausage makers in regard to the use of cereal products and water which cheapens the article and comprises an adulteration which is not tenable under our laws and rules.

The pickle manufacturers have had more or less trouble in eliminating benzoate of soda and alum out of their products. Some of the best manufacturers have succeeded in putting out pickles without these preservatives and are having fairly good success. One of the difficulties which we have heretofore explained is in stopping the shipment to private parties in the state from dealers outside the state of cheap, adulterated, and spurious food products which are sold at a reduced price and shipped to private individuals. The results of the sale of this kind of a product shipped in this way come under the Interstate Commerce and National laws. Just recently the Commissioner and his deputies in this state have been authorized by the Department of Agriculture at Washington to obtain samples of these goods, analyze them and prosecute the manufacturers under National ruling of National Pure Food laws and by this co-operation the food commission is not only enabled to enforce the state law, but also the National law.

In conclusion, I wish to say that it is a pleasure to deal with manufacturers who appreciate the benefit to them of the Pure Food law as it upholds and helps to advertise the pure article to the discomfiture of those who persist in putting their spurious compounds upon the market. We are still having some trouble with preparations which are being used in so-called soft drinks. The fruit syrups which are used to flavor these drinks have from time immemorial been doctored with preservatives. It seems to be a hard struggle for the manufacturers of these products to wean themselves from the notion that a preservative must be used. We are shutting it out from this state unless it is put up in pure form without preservatives. I believe the time is near at hand when both the National and state laws of this country will prohibit the use of artificial preservatives in all food products.

A. H. WHEATON.

RULING OF THE MINNESOTA DAIRY AND FOOD COMMISSION.**BLACKBERRY BRANDY.**

Section 1. Blackberry brandy shall be the distilled product from the fruit of the blackberry bush. The label shall bear the name and address of the manufacturer.

BLACKBERRY WINE.

Sec. 2. Blackberry wine shall be composed of the fermented juice of the blackberry and may contain cane or beet sugar provided that a statement to that effect appears upon the label. The name and address of the manufacturer shall be upon the label.

BLACKBERRY CORDIAL.

Sec. 3. Blackberry cordial shall be composed of

the juice of the blackberry and may be sweetened with cane or beet sugar and fortified with neutral spirits. The label shall bear the name and address of the manufacturer.

BLACKBERRY FLAVORED BRANDY.

Sec. 4. Blackberry flavored brandy shall be composed of the juice of the blackberry and may contain brandy other than blackberry brandy, for example, grape brandy, and may also contain cane sugar or beet sugar. If other ingredients are added such ingredients shall be stated upon the label. The name and address of the manufacturer shall appear upon the label.

IMITATION BLACKBERRY CORDIAL.

Sec. 5. Imitation blackberry cordial may be manufactured from other fruit juice and may contain cane sugar, beet sugar or glucose, and be fortified with neutral spirits. If added coloring matter is used that must be stated upon the label. If made up from refuse materials, such as grape pomace, or from fragments or trimmings of other fruits, a statement of such facts shall appear upon the label. Synthetic flavors may be used in this compound. The word "artificial" may be substituted for "imitation" if desired. The name and address of the manufacturer shall be upon the label.

BLACKBERRY FLAVORED CORDIAL.

Sec. 6. Blackberry flavored cordial shall be composed of the juice of the blackberry and may be fortified with wine for example, port wine. Cane or beet sugar may be used for the sweetening process. No added colors or flavors will be permitted in the above named product. The name and address of the manufacturer shall appear upon the label.

DESCRIPTIVE MATTER.

Sec. 7. All descriptive matter on labels upon barrels, kegs and similar containers shall be stenciled with letters not less than one-half inch in height and for bottles and similar containers shall be in type not less than 18-point bold-faced Gothic capitals. When the product is removed from the original package the container from which it is sold shall also bear a similar label.

NEW TECHNICAL DICTIONARY.**Progress in the Preparation of a German Reference Work.**

Consul-General Richard Guenther, of Frankfort, notes that at the annual meeting of the Association of German Engineers lately held at Dresden, announcement was made that the great work of compiling and publishing the new technical dictionary, which was conducted under the auspices of the Association, had to be stopped because it was found that the expense would amount to more than four times the estimates. Mr. Guenther adds:

The great progress in science and industries had created a vast mass of new terms and matter largely in excess of what had been estimated at the beginning. This stoppage is to be greatly regretted, as the want of a new technical dictionary and encyclopedia is acutely felt by the thousands of persons engaged in scientific research, in all lines of commerce and production, in literature, journalism, and in the administration of state and municipal government.

It is, however, satisfactory to note that the executive board of the Association of German Engineers has made strenuous efforts to take up and complete this valuable work, and has succeeded in obtaining therefor the aid of the Federal Government of Germany and of the Ministry of Education of the Prussian Kingdom.

ADDRESSES DELIVERED.

(Continued from page 15.)

ing of the Director, a member elected by the Pharmaceutical Association and a member elected by the State Medical Association is empowered to make rules and regulations as to drugs.

6. In the enforcement of the law the Director is authorized to call upon any commonwealth's attorney in the State to prosecute, and it then becomes the duty of attorneys so notified to prosecute. In order to protect the manufacturer or dealer, however, in case of the first offense, the Director is to notify the interested party and allow him to have a hearing within fifteen days before reporting to any prosecuting attorney.

7. The law provides for an annual report to the Governor and the printing of bulletins from time to time, giving name of samples adulterated, samples not adulterated, etc. It provides, however, that before such publication is made the manufacturer of the article and the dealer shall be furnished a true copy of the facts to be published at least thirty days before publication a hearing given if desired, and any statements or explanations made by such manufacturer and dealer shall be included in the same place and along with any publication made regarding the article. It further provides that if the manufacturer shall produce the affidavit of a competent analytical chemist controverting the findings of the station or its Director or chemist, affirmatively showing that there is neither adulteration nor misbranding of such article under the provisions of the act, then there shall be no publication of either the name of the manufacturer or dealer or of the name of the brand of the article until after a trial and a verdict of guilty. In case prosecution is made for violation of any of the provisions of the act, no official publication shall be made of the result of the inspection and analysis until the matter has been finally adjudicated.

8. The guaranty clause is as follows:

"In all prosecutions under this act, the courts shall admit as evidence a guaranty which has been made to the holder of the guaranty by any manufacturer or wholesaler residing in this State, to the effect that the product complained of is not adulterated or misbranded within the provisions of this act. And said guaranty, properly signed by the wholesaler, jobber or manufacturer or other party residing within this State from whom the holder of the guaranty may have purchased the article or articles complained of, and containing the full name and address of the party or parties making the sale of such article to the holder of the guaranty, and in the absence of any proof that the article or articles complained of were adulterated or misbranded after they had been received by the holder of the guaranty, shall be a bar to prosecution of the holder of such guaranty under the provisions of this act."

Since the law has only been in effect since June of this year, we have not had time to test its efficacy; but we hope that it will come up to our expectations in every respect. It is nearly all that could be desired by those who are charged with its enforcement. And it is believed that the manufacturer and seller of wholesome articles of food or drugs are amply protected.

In the passage of the bill we had the hearty and influential co-operation of food and liquor manufactur-

ers, the State and County Medical Associations, the State Board of Health, the State Board of Pharmacy, the various women's organizations, nearly every member of the legislature, the Governor and State officers, the press and the people generally, and we not only hope for but expect the co-operation of all those influences in the enforcement of the law.

PURE FOOD LAW OPERATIONS.**French Exports to United States Are Aided by It.**

Consul D. I. Murphy reports that so far as the records of the Bordeaux consulate disclose, there has been no diminution in the export of French foods and food products to the United States, consequent upon the enforcement of the pure-food law. On the contrary, the declared values of exports of such products during the first year of its operation actually increased. The consul's details of this trade follow:

As its exports to the United States consist chiefly of wines, oils, preserved fruits, vegetables, and fish and other foods, Bordeaux would naturally be one of the first places to feel the effects of changed conditions under which such products are permitted entry.

Many inquiries are made here as to the effect of the law on Bordeaux's trade, and surprise and gratification have frequently been expressed as to the statistics. Of course for a time after the law became operative (January 1, 1907), there was some confusion in the minds of shippers as to its provisions and some disturbance of trade, but the result has been on the whole beneficial.

The following table, showing declared values of foods exported from Bordeaux to the United States in 1906, compared with 1907, may be of interest:

Articles.	1906.	1907.	Increase.
Alimentary paste (macaroni, etc.).....	\$636,147	\$682,936	\$46,789
Jams and jellies.....	13,710	33,631	19,921
Olive oil	288,812	352,563	63,753
Preserved fruits	150,095	184,803	34,708
Preserved vegetables ...	172,976	228,108	55,132
Still wines.....	636,147	682,936	46,789
Sparkling wines	34,049	39,958	5,909

Other articles classed as foods show decreased exportation, but the decrease in almost every item may be properly accounted for without reference to the pure-food law. Exports of brandy, for instance, fell in 1907 as compared with 1906 to the amount of \$11,285, but the records show a much greater falling off in 1906 compared with 1905—no less, indeed, than \$106,515. The decrease in preserved fish, which was considerable, was due solely to the practical failure of the sardine fisheries, the packers here having been utterly unable to supply a hundredth part of their American orders. Exports of fungi fell off in 1906 to the amount of \$61,417, as compared with 1905, while in 1907 the decrease was but \$25,842, compared with 1906.

As for liqueurs, with slightly decreased export of 1907, the falling off is due to the provisions of the pure-food law forbidding the use of certain coloring matters, and the difficulty the manufacturers have found in finding the proper substitutes.

Considering the financial depression of 1907, the showing seems rather remarkable. It leads to the belief that instead of hampering trade, the pure-food law has benefited it, and it seems to have carried with it a greater respect for foreign labels.

COURT DECISIONS.

PENNSYLVANIA FOOD LAW DECLARED UNCONSTITUTIONAL.

In a decision rendered by Judge Martin Bell of the Blair County Court, Pennsylvania, which we herewith reproduce, the Tustin pure food act of the last legislature has been declared unconstitutional. In commenting upon the decision, Commissioner Foust says:

"This decision does not in any way apply to oleomargarine, 'renovated' butter, vinegar, fruit syrup, fresh meat, game, fish and shell-fish, or milk where chemicals are used.

"Section eleven of the Pennsylvania law provides as follows, and will not in any way apply to or effect the laws relating to above articles.

"Section 11. The following act of Assembly, namely an act entitled 'An act to provide against the adulteration of food, and providing for the enforcement thereof,' approved the twenty-sixth day of June, one thousand eight hundred and ninety-five (Pamphlet Laws, three hundred and seventeen); all other acts and parts of acts pertaining to the said matter, covered by this act, be and the same are hereby repealed: Provided, nevertheless, That this act shall not apply to, nor in any way affect, any acts of Assembly heretofore passed regulating the manufacture, sale, and dealing in milk, cream, butter, oleomargarine, butterine, and all other substitutes for butter, oleaginous or dairy products; also acts relating to fresh meats, poultry, game, fish, cider, vinegar, and fruit syrups—all of which acts shall remain in full force, and be enforced by the dairy and food commissioner, as fully in all respects as if this act had not been passed: And provided further, That the repeal of the acts hereinbefore specifically repealed shall not prevent the prosecution to final judgment and execution of any action now pending for violation thereof, nor to the commencement and prosecution to final judgment and execution of any action for any violation of any of said acts heretofore committed."

Commissioner Foust further says:

"We have pending about two hundred and fifty cases in Pennsylvania at the present time, and only six are affected by Judge Bell's decision, as a large number of our cases are brought under the other acts." An appeal will be taken before the Supreme Court in Philadelphia in October in order to insure a decision in time to remedy any defects in the law at the next session of the legislature.

Commonwealth of Pennsylvania }
vs. } No. 179, October
C. M. Kephart. } Term, 1907.

OPINION.

August 20, 1908. By the Court. In the oral argument of counsel several interesting questions were elaborately debated, and likewise exhaustively treated in the briefs submitted. First, as to the right of the defendant to an appeal; second, as to whether the title of the act was sufficient; third, as to the force of the guarantee clause provided in the act. But it is unnecessary to discuss these interesting questions because the act of June 1, 1907, commonly known as the Pure

Food Act, to my mind, is plainly unconstitutional, regard being had especially to the proviso in Section 5.

Article III, Section 4, of the Constitution of Pennsylvania, provides as follows: "No law shall be revived, amended, nor the provisions thereof extended or conferred by reference to its title only, but so much thereof as is revived, amended, extended or conferred shall be re-enacted and published at length."

It will thus be seen that the plain constitutional intent was that the language of a law should be printed at length and in full. The word "conferred" indicates that this applies to new enactments as well as old, but in point of fact perhaps not ostensibly, the pure food act of June 1, 1907, was an amendment to prior acts on the same subject. Under said constitutional provisions certainly a prior act of Pennsylvania could not have been picked up bodily and thrown into the act of June 1, 1907, by reference to its title only. Can an act of Congress be thus interjected into said act of our legislature? Counsel for defendant have cited some authorities to the effect that this can be done. Some of these are *Dilworth vs. Schuylkill Improvement Land Co.*, 219 Pa. 527; *Woolen Machine Co. vs. Browne*, 206 Pa. 543; *Greenfield Avenue*, 191 Pa. 290; *Birmingham Railway Co. vs. Land Co.*, 114 Ala. 70; *Montgomery vs. Birdsong*, 126 Ala. 632. But an examination of these authorities so far as they are accessible show that they are not in pari materia with the present case.

But assuming that an act of Congress could thus be interjected into said act of the legislature what contention can be made in favor of the further provision that our courts in Pennsylvania must take notice of the rules and regulations promulgated from time to time by the United States authorities for the enforcement of the United States Pure Food Act.

Section 5 of said act of June 1, 1907, provides as follows:

"Section 5. That for the purpose of this act, an article shall be deemed adulterated—

"In the case of food:

"First. If any substance has been mixed and packed with it so as to reduce or lower, or injuriously effect its quality or strength.

"Second. If any substance has been substituted, wholly or in part for the article.

"Third. If any valuable constituent of the article has been wholly or in part abstracted.

"Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed.

"Fifth. If it contains any added substance or ingredient which is poisonous or injurious to health: Provided, however, that no action shall be brought or sustained for violation of the provisions of this section when the article alleged to be adulterated is not adulterated within the meaning of the provisions of the 'Food and Drugs Act' of June thirtieth, one thousand nine hundred and six, enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, and the rules and regulations promulgated, from time to time, for the enforcement of the same."

Judges are presumed to take judicial notice of the Acts of Assembly of the state of Pennsylvania. They are furnished with copies of the pamphlet laws, and if they are not too busy or too indolent they can read them. Likewise they are presumed to take judicial notice of the statutes of the United States, although

no copies of such statutes are furnished to our judges. But how can a judge be supposed to take judicial notice of some bulletin issued by the United States Pure Food Commissioner. Possibly after he had directed the conviction of a defendant he would discover that the said United States Pure Food Commissioner had changed his ruling and the conviction was all wrong. And moreover the judges in Pennsylvania are not furnished with said bulletin, at least I never received any and never saw one. To allow the law to be determined by such bulletins would be to render confusion twice confounded. I therefore conclude that said proviso contained in said Section 5 of said act of June 1, 1907, is clearly unconstitutional.

Counsel for the commonwealth, however, contend that even if said proviso is unconstitutional the remainder of the act is valid. Unquestionably in some instances a portion of an act may be declared void and the remainder of the act may be held to be valid. The rule on this subject is as follows:

"It is a familiar rule that part of a statute may be unconstitutional and the remainder constitutional, and that which is unconstitutional will stand unless its provisions are so connected and dependent on each other in subject matter that it must be presumed the legislature would not have enacted one without the other. Where the parts are so separable that each can stand alone, and it was evidently the legislative intent that the part held to be valid should be enforced, although the other part should fall, the part so sustained should be declared operative."

Com. vs. Shalleen, 30 Sup Ct. Rep. 14.

"Where a part of a statute is constitutional and a part is unconstitutional the former may be sustained in many cases where the latter fails. Indispensable conditions of such a result are that the constitutional part and the unconstitutional part are capable of separation, so that each may be read and may stand by itself, and that the unconstitutional part is not connected with the general scope of the law that it is impossible to give effect to the intention of the legislature in its enactment without it."

Cella Commission Co. vs. Bollinger, 147 Fed. 419.

"Every part of a statute should be brought into action in order to collect from the whole on uniform and consistent sense, if that may be done; or, in other words, construction must be made on the entire statute and not merely upon disjointed parts of it."

Holl vs. Deshler, 71 Pa. 301.

"Though the proviso may not be effectuated because of the unconstitutionality, it cannot be stricken out in giving interpretation to the section. The section speaks as an entirety in its purpose, and not in parts, which may be severed without violence to the legislative purpose. Where, as here, the parts are so dependent that one cannot take effect without the other, so as to carry out the legislative intent, we cannot legislate by way of substitution."

Com. vs. Potts, 79 Pa. 168.

"Where the parts of a statute are so materially connected and dependent as to warrant a belief that the legislature intended them as a whole and that if all could not be carried into effect the legislature would not have passed the residue independent of some parts, are unconstitutional and void, and all provisions which are thus dependent are void."

Warren vs. Charleston, 2 Gray, 84.

"The constitutional amendment of 1900 authorized

the country courts in several counties in the state, not under township organization, and the township board of directors under township organization, in their discretion to levy an additional tax to be used for road and bridge purposes, provided the amendment should not apply to certain named cities in the state. Held, that it being plain that the law would probably not have been passed without such exemption and the court having no power to make the amendment applicable to the parts of the state exempted, the exemption could not be expunged and the remainder of the provision sustained."

State vs. C. B. & Q., 93 S. W. 784; 195 Mo. 228.

Prior to the passage of this act of June 1, 1907, prosecutions could be brought against the retailer and he was defenseless if adulteration was shown. The evident legislative intent was to give the retailer a defense if he had a proper guarantee. To emasculate the proviso heretofore referred to would defeat such legislative intent because the act provides that a guarantee sufficient under the federal laws shall be a protection under our state laws. If, then, we emasculate the proviso we have a case where "it must be presumed the legislature would not have enacted one without the other." Commonwealth vs. Shalleen, 30 Sup. Ct. Rep. 14. Again "if it is impossible to give effect to the intention of the legislature in its enactment without it" the proviso. Cella Commission Co. vs. Bollinger. "Whereas here the parts are so dependent that one cannot take effect without the other so as to carry out the legislative intent we cannot legislate by way of substitution." Commonwealth vs. Potts, 79 Pa. 168.

Said act of June 1, 1907, deals unfairly with wholesalers or jobbers in the state of Pennsylvania. If such parties give a guarantee to a retailer and the goods are adulterated they can be prosecuted forthwith in the state of Pennsylvania. But suppose the retailer buys from a wholesaler in the city of New York. The goods are found to be adulterated. All the remedy the pure food department of the state of Pennsylvania has is to notify the pure food department of the United States of such adulteration, and it is very conceivable that in the crush of business in the United States courts in the city of New York no prosecution would ever be tried against the New York wholesaler who sold the adulterated goods. Consequently he could afford to sell goods at a much lower rate than our own Pennsylvania wholesalers and jobbers because the chances would be that he would never be tried for selling adulterated goods.

The judgment of the alderman is reversed and now judgment is entered for the defendant.

MARTIN BELL, P. J.

To which ruling counsel for the commonwealth except and pray that a bill be sealed, which is accordingly done this twentieth day of August, 1908.

MARTIN BELL, P. J.

From the records certified this 20th day of August, A. D. 1908.

(Seal)

H. E. FERGUSON,
Prothonotary, G. R. C.

CONSTRUCTION OF SECTION 3 OF THE INDIANA PURE FOOD LAW.

The supreme court of Indiana says, in the case of State vs. Squibb, 84 Northeastern Reporter, 969, that the court below quashed each court of an affidavit,

which charged that on June 24, 1907, the defendant (1) did unlawfully and knowingly sell to persons whose names were unknown to the affiant milk produced from cows fed upon the refuse of a distillery; (2) did unlawfully and knowingly have in his possession, with intent to sell, milk produced from cows fed upon the refuse of a distillery; and (3) did unlawfully and knowingly have in his possession, with intent to sell to parties outside of the state of Indiana, whose names were unknown to the affiant, milk produced from cows fed on the refuse of a distillery.

The errors assigned challenged the rulings of the court in quashing each count of the affidavit. The first count was based upon section 547 of chapter 168 of the Indiana acts of 1905, relative to selling unwholesome milk. The second and third counts were founded upon section 3 of the pure food law of 1907, which reads as follows: "Milk—Adulterations—Sale—Standard. Sec. 3. That no person either by his servant or agent, or as the servant or agent of another person, shall sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange or deliver, expose or offer for sale or exchange, adulterated milk to which water or any foreign substance has been added, or milk produced from cows which have been fed on the refuse of distilleries, or from sick or diseased cows, or as pure, milk from which the cream or a part thereof has been removed, or milk which is not of standard quality, or milk collected and kept or handled under conditions which are not cleanly and sanitary, or milk containing less than eight and one-half per cent of milk solids exclusive of fat, and 3.25 per cent of milk fat, or milk which contains any added color or preservative: Provided, however, 'refuse of distilleries' shall not be construed to mean or apply to dried distillers' grains in sound condition."

The defendant justified the decision of the lower court in quashing the first count of the affidavit upon the ground that the statute of 1907 repealed section 547 of the act of 1905 concerning public offenses. And the supreme court says that the act of 1907 forbidding the manufacture, sale, or offering for sale of any adulterated or misbranded foods or drugs, defining foods and drugs, and defining the duties of the state board of health in this connection, is very comprehensive in its scope. Section 3 of this act is addressed to the same subject-matter as section 547 of the crimes act of 1905, to wit, unwholesome milk. The latter act covers the whole subject-matter, is different and more comprehensive in its terms, adds new offenses, and prescribes different penalties for the crimes enumerated and defined in the former. In the early case of *Norris vs. Crocker et al.*, 13 How. (U. S.) 429, the principle governing repeals by implication was very aptly stated as follows: "As a general rule it is not open to controversy that, where a new statute covers the whole subject-matter of an old one, adds offenses, and prescribes different penalties for those enumerated in the old law, then the former law is repealed by implication, as the provisions of both cannot stand together." In the court's opinion section 3 of the later act was intended to be a complete revision of the former law relating to the sale of adulterated or unwholesome milk, and to supersede and repeal section 547 of the act of 1905, upon which the first count of the affidavit herein was founded, and it necessarily follows that the lower court rightly quashed said count.

The second and third counts of the affidavit pur-

ported to charge that the defendant in person or as principal, unlawfully and knowingly had in his possession with intent to sell milk produced from cows fed on the refuse of a distillery. His contention was that section 3 of the act of 1907 makes such possession unlawful only by a servant or agent. The language of the statute is peculiar, and yet unmistakably plain, to wit: "No person, either by his servant or agent, or as servant or agent of another person shall sell," etc. Manifestly it is only a sale, exchange, delivery, custody, or possession by or through a servant or agent, or in the capacity of servant or agent for another, that is forbidden in this act. It was most forcibly argued by the attorney general that principals as well as agents and acts by principals as well as by their agents should be embraced within the penal provisions of this law. The argument was entirely convincing, but should be addressed to the legislature rather than to the courts. It is conceivable that the legislature might have assumed that the objectionable practices against which the law was directed were carried on wholly by corporations, which must act through servants and agents, or for other reasons deemed the law in this form effective and adequate. It was suggested that the statute should be construed and interpreted as though it read: "No person, either himself or by his servant or agent," etc. The language used is clear, and will not admit of construction or interpretation, and this court cannot therefore supply words which it might think the legislature ought to have supplied and used, and thereby extend its scope so as to embrace a class of persons not included within its terms. The act of 1905 prohibited the sale of milk from cows fed upon the refuse of any distillery or brewery while the act of 1907 omits the words "brewery." If the court were at liberty to substitute its own for the legislative judgment, it might be inclined, as counsel suggested, to read the brewery back into the law, as well as the principal when acting without the intervention of an agent. The court cannot make laws, and it is not within its province to supply these omitted words, even though no good reason may appear why they were excluded from the provisions of the statute.

It followed that the facts stated in the second and third counts of the affidavit did not constitute a public offense, and the court rightly quashed each of said counts.

EXTENT TO WHICH MILK DEALERS ARE BOUND BY REPRESENTATIONS OF DRIVERS.

One of the questions in the case of *People vs. Terwilliger*, 110 New York Supplement, 1034, was whether the act of an agent of the defendant for selling milk, the driver of a wagon who was the defendant's son, telling the inspectors who took samples that the defendant did not produce the milk, thus inducing them not to take a herd sample, was to be regarded as the act of the defendant. Generally speaking, the supreme court of New York, trial term, Chemung county, says, the acts and declarations of an agent are binding upon his principal while, and only while, he is discharging his duty as an agent and acting within the scope of his authority. The agency of the defendant's son, as disclosed by the evidence, was for the purpose of selling milk to the defendant's customers in Elmira. If, in the course of business, he represented to one of these customers that the milk was produced by the defendant, that it was of a certain kind and quality, or

that it was only of a certain age, the defendant would be bound by such representations. The reasons why the defendant would be bound by representations of this character were first, they related to the subject-matter of his agency; they were within the presumed scope of his authority; and they were made to persons with whom he was authorized to deal. The authority to make such representations was implied from the nature of the employment, but the defendant did not employ his son to do business with or have any dealing with the agricultural department or its agents, and there was nothing in the nature of his employment from which such authority naturally flowed or would be implied. The business in which the defendant employed his son was that of selling milk, and any representations made by his son in that business would be binding upon the principal; but there was no relation whatever between the business of selling milk and that of negotiating with the agents of the agricultural department and making statements to them, either as to the quality of the milk or as to the place where it was obtained, and this the court believes to be especially true in an action of this character where the basis of the claim is of a quasi criminal nature.

FRENCH DAIRY CONGRESS.

Recommendations of the Recent Milk Industry Conventions.

Consul D. I. Murphy reports that a Bordeaux newspaper publishes an account of the proceedings of the Third Congress of the Milk Industry, held recently at Paris, concerning which he writes:

As the recommendations adopted seem to have attracted considerable attention in the milk, butter, and cheese industries in this part of France, I give herewith a translation of principal recommendations, as follows:

Milk.—(1) In all business transactions in which milk for human consumption is concerned, purchases should be effected only according to the richness of the milk in its several extractive principles and not according to volume. (2) In the actual state of things and with due regard to scientific precision, "good milk" is "the integral product, unadulterated and unchanged, of the total and uninterrupted milking of a milch cow in good condition, well fed and not over worked." (3) The definition of "pure milk" to be as follows: "Milk having a distinctly determined origin, not having undergone any alteration, subtraction, or mixture that might change or modify its essential properties." (4) The average composition of each season be established every year by milk districts under the direction of the minister of agriculture.

Butter.—"Genuine butter" (pure in the ordinary sense of the word) is defined as "the mixture of glycerines (fatty matters) which are obtained by the churning of pure milk or of the cream extracted from pure milk, acidified by lactic ferments."

Cheese.—"Pure cheese" is the product obtained by coagulation, by pressure or by lactic fermentation, of the caseine of milk mixed with a variable quantity of fatty matter extracted from milk exclusively.

Eggs.—"Fresh eggs" are only those which by "mirage" (or looking through) show no loss of water and no trace of decomposition.

You can secure the back numbers of The American Food Journal at the regular subscription price of \$1.00 per year.

Notice of Judgment No. 4.

Issued July 29, 1908.

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

NOTICE OF JUDGMENT NO. 4, FOOD AND DRUGS ACT.

MISBRANDING OF COFFEE.

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the Rules and Regulations for the enforcement of the act, notice is given that on the 30th day of April, 1908, in the District Court of the United States for the District of Massachusetts, in a proceeding of libel for condemnation of two hundred and ten packages of coffee, labeled and branded in part "Refined Coffee, Digesto Brand," wherein the United States was libellant and the United States Coffee Refining Company, a corporation, was claimant, the cause having come on for a hearing and the claimant having waived its exceptions to the libel, and failed to answer, a decree was rendered, in substance and form as follows:

Dodge, J. This cause came on to be heard before me, and, after hearing the complainant, the claimant having waived his exceptions and failed to answer, it is now, to wit: April 30, 1908, ordered, adjudged, and decreed that said two hundred and ten packages of coffee are misbranded but not adulterated within the meaning of the Food and Drugs Act, June 30, 1906, and upon petition of the claimant it is further ordered, adjudged, and decreed that upon the payment of the costs of the libel proceedings and upon the execution and delivery of a bond in the sum of two hundred (200) dollars conditioned that said two hundred and ten packages shall not be sold or otherwise disposed of contrary to the provisions of the said act, or the laws of any state, territory, or insular possession, said packages of coffee shall be delivered to the claimant."

This case grew out of the following state of facts:

On or about March 24, 1908, an inspector of the Department of Agriculture located on the premises of the Metropolitan Steamship Company, India Wharf, Boston, Mass., a consignment consisting of a number of cases, each of which contained one dozen packages of "Refined Coffee, Digesto Brand," subject to the order of the United States Coffee Refining Company, of New York city. The label appearing on each in full was as follows:

"Refined Coffee, Digesto Brand. This high-grade coffee is the only really refined coffee known. The excess of *both* caffeine and caffetannic acid has been removed. Consequently, its flavor is better than other coffee, because this bitterness and acidity have been extracted. Does ordinary coffee hurt you? Many people cannot drink unrefined coffee because it contains the irritating poisons, caffeine and tannic acid. They produce—headache, wakefulness, palpitation of the heart, nervousness, nervous dyspepsia, indigestion, biliousness, languid feeling, heartburn, depression of spirits, irritability, tremulousness, caffeinism. (See Century Dictionary.) Why refined coffee will not hurt you: The excess of irritating bitter poison is taken out of this coffee. Is it refined by both mechanical and chemical processes."

The product was misbranded in violation of Section

8 of the Food and Drugs Act, as appeared from the analysis made by the Bureau of Chemistry, Department of Agriculture, the results of which are hereinbelow set forth, in that it purported to be a refined coffee, when as a matter of fact it was not, and in that the following statements were made which were false, deceptive, and misleading: It was claimed that the coffee, by reason of its purity, was the best in the world for flavor and aroma. It was represented that the excess of both caffein and caffetannic acid had been removed from the coffee, whereas in truth and in fact no portion of these substances had been so removed, unless by the removal of a portion of the substance of the coffee itself; that its flavor was better than any other coffee because bitterness and acidity had been extracted; that the reduction of the bitter and acid elements left the coffee in a highly purified form; that the excess of irritating bitter poison had been taken out of the coffee, and that it was refined by both mechanical and chemical processes; and that the manner in which the coffee was prepared permitted the real flavoring constituent—an aromatic oil—to be extracted easily by boiling.

A sample of the coffee was obtained by an inspector of the Department of Agriculture, and on analysis the results given below were obtained. At the same time an analysis of a sample of ordinary roasted coffee purchased on the open market was made and these results are also given for comparison:

Analysis of "Digesto" and of ordinary coffee.

Determination.	"Di- gesto" coffee.	Ordinary roasted coffee.
Water (per cent).....	2.45	3.19
Ash (per cent).....	4.23	3.92
Alkalinity of ash (c. c. of normal acid per 100 grams of material).....	48.2	48.4
Fat (per cent).....	14.10	15.92
Proteids ($N \times 6.25$) (per cent).....	12.43	13.50
Chloroform extract from alkaline solu- tion of the water extract.....	1.24	1.30
Acidity (c. c. of normal alkali per 100 grams of material).....	22.0	28.0
Caffetannic acid (per cent).....	10.88	10.67
Caffein (per cent).....	1.06	1.04

The results of these analyses showed that the sample of "Digesto" coffee corresponded very closely in composition with the average roasted coffee, contained a normal amount of caffetannic acid and caffein, and had not been treated in any manner so as to produce a material difference between it and the average coffee.

On March 25, 1908, the facts were reported by the secretary of agriculture to the United States attorney at Boston, Mass. Libel for seizure and condemnation was duly filed in the District Court of the United States for the District of Massachusetts, under Section 10 of the act, with the result hereinbefore stated.

H. W. WILEY,

GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,

Acting Secretary of Agriculture.

Washington, D. C., July 6, 1908.

Notice of Judgment Nos. 5-11

Issued August 13, 1908

United States Department of Agriculture

OFFICE OF THE SECRETARY
BOARD OF FOOD AND DRUG INSPECTION

NOTICE OF JUDGMENT Nos. 5-11, FOOD AND DRUGS ACT.

5. Misbranding of Vanilla Extract. 6. Misbranding of Cider.
7. Misbranding of Eggs. 8. Adulteration of Milk (Formal-
dehyde). 9. Adulteration of Milk (Water and Formalde-
hyde). 10. Misbranding of Cocaine Hydrochloride. 11.
Adulteration of Milk (Water).

(N. J. 5.)

MISBRANDING OF VANILLA EXTRACT.

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 26th day of May, 1908, in the United States district court for the western district of New York, in a criminal prosecution by the United States against C. B. Woodworth Sons Company, a corporation conducting business in New York and elsewhere, for violations of Section 2 of the aforesaid act in shipping and delivering for shipment from New York to Ohio an adulterated and misbranded vanilla extract, the said C. B. Woodworth Sons Company entered pleas of guilty, whereupon the court imposed upon it a fine of \$100 in respect to the shipment of misbranded extract, and suspended sentence in respect to the shipment of adulterated extract.

The following is a statement of facts upon which the case is based:

On August 7, 1907, an inspector of the Department of Agriculture purchased from Colter & Co., Cincinnati, Ohio, a sample of food product labeled "Double Extract of Vanilla, for flavoring ice creams, custards, sauces, jellies, and pastry, C. B. Woodworth Sons Co., Rochester, N. Y." The product was duly analyzed in the Bureau of Chemistry, Department of Agriculture, and the following results were obtained and stated:

Volume (cc.)	122
Vanillin (per cent)	0.049
Resins	Practically none.
Coal-tar dye	Present.

In "Standards of Purity for Food Products," Circular No. 19, Office of the Secretary, Department of Agriculture, established under authority of the act of March 3, 1903, vanilla extract is defined as follows:

"Vanilla extract is a flavoring extract prepared from vanilla bean, with or without sugar or glycerin, and contain in one hundred (100) cubic centimeters the soluble matters from not less than ten (10) grams of vanilla bean."

It was misbranded because labeled "Double Extract" and adulterated because it was not vanilla extract but a mere imitation, colored with a coal-tar dye to make it resemble real vanilla extract. It was also a substitution of an imitation for a genuine food article.

It was misbranded because labeled "Double Extract of Vanilla," when it was in fact an imitation of that article, containing a mere trace of vanilla and a coal-tar dye to impart the color of pure extract.

The Secretary of Agriculture having afforded the

manufacturers an opportunity to show any fault or error in the aforesaid analysis, and they having failed to do so, the facts were duly reported to the Attorney-General, who referred the case to the United States attorney for the western district of New York, who filed two informations against said C. B. Woodworth Sons Company, with the result hereinbefore stated.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,

Acting Secretary of Agriculture.

Washington, D. C., July 17, 1908.

(N. J. 6.)

MISBRANDING OF CIDER.

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 1st day of June, 1908, in the district court of the United States for the western district of Kentucky, in a proceeding of libel for condemnation of cider, misbranded as to place of manufacture and name of manufacturer, wherein the United States was libellant and the O. L. Gregory Vinegar Company, a corporation, was claimant, the said claimant having admitted the allegations of the libel a decree of forfeiture and condemnation was rendered in substance and form as follows:

"In the District Court of the United States for the Western District of Kentucky,

"The United States of America vs. Ten Barrels of Cider Etc."

"Came the claimant and moved to the court to order that upon payment of the costs of the libel proceedings herein and the execution and delivery of a good and sufficient bond in the sum of \$200.00 that the articles contained herein shall not be sold or otherwise disposed of contrary to the provisions of the Food and Drugs Act, or the laws of any state, territory, district, or insular possessions; said articles condemned herein shall be delivered to said claimant as owner thereof, and the district attorney not objecting to the amount of said bond, it is now ordered and adjudged that said motion be granted; and thereupon said claimant produced and delivered to the court its bond with James P. Gregory and Boyle G. Boyle as securities, which bond is approved by the court, and it is ordered that upon payment of the costs taxed herein to the clerk, the articles condemned herein shall be delivered to said claimant said O. L. Gregory Vinegar Company.

"Enter June 1, 1908. Walter Evans, Judge."

The case grew out of the following state of facts:

On or about May 19, 1908, an inspector of the Department of Agriculture located in course of transit a quantity of cider, consisting of 10 barrels, 75 half-barrels, and 50 kegs, consigned by A. Schmidt, Jr., & Bros. Wine Company, of Sandusky, Ohio, to the O. L. Gregory Vinegar Company, Paducah, Ky. The cider was marked and branded "Blue Ribbon Apple Cider, containing one-tenth per cent benzoate of soda, O. L. Gregory Vinegar Company, Paducah, Ky." Since the cider was manufactured by the consignor, A. Schmidt, Jr., & Bros. Wine Company, at Sandusky, Ohio, and the labels on the package bore the name and address of O. L. Gregory Vinegar Company stated in a man-

ner purporting manufacture by that company at Paducah, Ky., the product was misbranded in violation of Section 8 of the act.

On May 20, 1908, the facts were reported by the Secretary of Agriculture to the United States attorney at Louisville, Ky. Libel for seizure and condemnation, under Section 10 of the act, was duly filed in the court aforesaid in session at Paducah, Ky., upon which seizure was forthwith made and notice given to claimant, O. L. Gregory Vinegar Company. The said claimant appeared and admitted that the cider seized was subject to seizure by the United States for the causes stated in the libel. Whereupon the court adjudged the cider misbranded, and upon the filing of a good and sufficient bond, in accordance with Section 10 of the act and under the provisions of the decree hereinbefore set forth, the goods were duly surrendered to the claimant.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,

Acting Secretary of Agriculture.

Washington, D. C., July 15, 1908.

(N. J. 7.)

MISBRANDING OF EGGS.

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 3d day of June, 1908, in the police court of the District of Columbia, in a criminal prosecution by the United States against F. Rogerson Company, a corporation, for violation of Section 2 of the aforesaid act, in the sale and offer for sale in said district of misbranded eggs, that is to say, eggs contained in cases labeled "Fresh Eggs," the said Rogerson Company, defendant, entered a plea of guilty, whereupon the court imposed upon it a fine of \$75.

The facts in the case were as follows:

On December 19, 1907, an inspector of the Department of Agriculture purchased from F. Rogerson Company, 920 Louisiana avenue, Washington, D. C., three dozen eggs, each dozen being contained in pasteboard boxes upon which was printed "Fresh Eggs." The eggs were forthwith examined in the Bureau of Chemistry of said department, and the result disclosed that they were not fresh; that the albumen in some of the eggs clung to the shell membrane; that the size of the air chamber varied to the maximum of one-third of the size of the egg, showing a large amount of evaporation; that minute rosette crystals were present in the albumen of each egg, and that large rosette crystals were found in the yolk of each egg. The eggs were therefore misbranded within the meaning of Section 8 of the act.

On January 28, 1908, the Secretary of Agriculture accorded F. Rogerson Company a hearing. As there was nothing disclosed at this hearing tending to show any fault or error in the result of the aforesaid examination, the facts were duly reported to the Attorney-General and by him to the United States attorney for the District of Columbia, who, on the 29th day of May, 1908, filed an information in the police court of said district alleging the sale of misbranded

eggs by said F. Rogerson Company, with the result hereinbefore stated.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,
Acting Secretary of Agriculture.
Washington, D. C. July 15, 1908.

(N. J. 8.)

ADULTERATION OF MILK (FORMALDEHYDE).

In accordance with the provisions of Section 4 of the Food and Drugs Act of June 30, 1906, and of Regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 19th day of June, 1908, in the district court of the United States for the southern district of Illinois, southern division, in a criminal prosecution by the United States against Daniel Strassen for violation of Section 2 of the aforesaid act in shipping and delivering for shipment into interstate commerce adulterated milk—that is to say milk which had formaldehyde mixed with it—the said Daniel Strassen having entered a plea of guilty, judgment was rendered by the court in substance and form as follows:

“In the District Court of the United States for the Southern District of Illinois, Southern Division.

“Friday, June 19, A. D. 1908.

“Present, the Honorable J. Otis Humphrey, Judge.

“The United States vs. Daniel Strassen. Criminal information. Term No. 86. General No. 10,976. Violation of Food and Drugs Act.

“And now on this 19th day of June, A. D. 1908, comes the United States, the plaintiff in this case, by W. A. Northcott, Esq., United States attorney for the southern district of Illinois, and comes also the defendant, Daniel Strassen, in custody.

“And the said defendant, being arraigned on the criminal information, for plea thereto says that he is guilty as therein charged, and he having nothing to say why sentence should not be pronounced against him, it is thereupon ordered by the court that sentence in this case be suspended.

The facts of the case were as follows:

On October 3, 1907, an inspector of the Department of Agriculture obtained, in St. Louis, Mo., samples of milk from a consignment of that article shipped from Fruit, Ill., by Daniel Strassen. One of the samples was forthwith subjected to analysis in the Bureau of Chemistry, Department of Agriculture. The result obtained showed the presence of formaldehyde. The milk in question was, therefore, adulterated in that it contained a deleterious and poisonous ingredient which rendered it injurious to health.

On January 15, 1908, the Secretary of Agriculture accorded Daniel Strassen a hearing. As there was nothing disclosed at this hearing tending to show any fault or error in the result of the analysis above stated, the facts were, on April 30, 1908, reported to the Attorney-General and by him to the United States attorney for the southern district of Illinois, who, on the 1st day of June, 1908, filed an information in the court aforesaid alleging the shipment and delivering for shipment, by the said defendant, from Fruit, in the State of Illinois, to St. Louis, in the

State of Missouri, of adulterated milk, with the result set forth in the judgment hereinbefore given.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,
Acting Secretary of Agriculture.
Washington, D. C., July 15, 1908.

(N. J. 9.)

ADULTERATION OF MILK (WATER AND FORMALDEHYDE).

In accordance with the provisions of section 4 of the Food and Drugs Act of June 30, 1906, and of regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 19th day of June, 1908, in the district court of the United States for the southern district of Illinois, southern division, in a criminal prosecution by the United States against Daniel Strassen for violation of section 2 of the aforesaid act in shipping and delivering for shipment into interstate commerce adulterated milk—that is to say, milk that contained an excess of water and had formaldehyde mixed with it—the said Daniel Strassen having entered a plea of guilty a judgment was rendered by the court in substance and form as follows:

“In the District Court of the United States for the Southern District of Illinois, Southern Division.

“Friday, June 19, A. D. 1908.

“Present, the Honorable J. Otis Humphrey, Judge.

“The United States vs. Daniel Strassen. Criminal information. Term No. 85. General No. 10975. Violation of Food and Drugs Act.

And now on this 19th day of June, A. D. 1908, comes the United States, the plaintiff in this case, by W. A. Northcott, Esq., United States attorney for the southern district of Illinois, and comes also the defendant Daniel Strassen in custody.

And the said defendant being arraigned on the criminal information herein, for plea thereto says that he is guilty as therein charged, and he having nothing to say why sentence should not be pronounced against him, it is therefore considered and adjudged by the court that the said defendant Daniel Strassen, for the offense by him committed in manner and form as charged in the said criminal information and as by him confessed, do pay a fine to the United States in the sum of one hundred dollars, together with the costs of this prosecution, amounting to the sum of thirty-eight dollars and forty-eight cents, and that execution issue therefor.

The facts of the case were as follows:

On October 3, 1907, an inspector of the Department of Agriculture obtained, in St. Louis, Mo., samples of milk from a consignment of that article shipped from Fruit, Ill., by Daniel Strassen. One of the samples was forthwith subjected to analysis in the Bureau of Chemistry, Department of Agriculture, and the following result obtained and stated:

Fat (per cent)	4.2
Non-fatty solids (per cent)	8.15
Formaldehyde	Present

Milk is defined in the “Standard of Purity for Food Products,” promulgated under authority of law by the Secretary of Agriculture, as follows:

Milk is the fresh, clean, lacteal secretion obtained

from the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and ten days after calving, and contains not less than eight and one-half (8.5) per cent of solids not fat, and not less than three and one-quarter (3.25) percent of milk fat.

The milk in question was therefore adulterated within the meaning of section 7 of the act, in that it contained an excessive amount of water, thereby reducing its quality and strength, and in that it contained formaldehyde, a poisonous and deleterious ingredient which rendered the milk injurious to health.

On January 15, 1908, Secretary of Agriculture accorded Daniel Strassen a hearing. As there was nothing disclosed at this hearing tending to show any fault or error in the result of the analysis above stated, the facts were, on April 30, 1908, reported to the Attorney-General and by him to the United States attorney for the southern district of Illinois, who, on the 1st day of June, 1908, filed an information in the court aforesaid alleging the shipment and delivering for shipment by the said defendant from Fruit, in the State of Illinois, to St. Louis, in the State of Missouri, of adulterated milk, with the result set forth in the judgment hereinbefore given.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,
Acting Secretary of Agriculture.
Washington, D. C., July 15, 1908.

(N. J. 10.)

MISBRANDING OF COCAIN HYDROCHLORID.

In accordance with the provisions of section 4 of the Food and Drug Act of June 30, 1906, and of regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 22d day of June, 1908, in the police court of the District of Columbia in a criminal prosecution by the United States against J. Roach Abell for violation of section 2 of the aforesaid act in the sale and offer for sale in the said District of Columbia of a misbranded drug—that is to say, cocain hydrochlorid, a cocain derivative, contained in a package which failed to bear any label or statement of the quantity or proportion of cocain hydrochlorid contained therein, the said J. Roach Abell, defendant, entered a plea of guilty, whereupon the court imposed upon him a fine of \$100.

The following is a statement of the facts out of which the case arose:

On April 5, 1908, a small package of cocain was obtained through purchase by an inspector of the Department of Agriculture from J. Roach Abell, at his place of business located at Fourth-and-a-half and F streets SW., Washington, D. C. The package was not labeled and bore no mark of any character to show the nature of its contents. The contents of the package were duly analyzed in the Bureau of Chemistry, Department of Agriculture, and found to consist essentially of cocain hydrochlorid. The preparation was misbranded in violation of section 8 of the act because the package in which it was sold failed to bear a label or statement thereon of the quantity or proportion of cocain hydrochlorid contained therein.

On April 9, 1908, the Secretary of Agriculture accorded the said defendant a hearing. As there was

nothing disclosed at this hearing tending to show any fault or error in the result of the aforesaid analysis, the facts were duly reported to the Attorney-General and by him to the United States attorney for the District of Columbia, who, on the 6th day of June, 1908, filed an information in the police court of the said District alleging the sale of misbranded cocain hydrochlorid, with the result hereinbefore stated.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,
Acting Secretary of Agriculture.
Washington, D. C., July 15, 1908.

(N. J. 11.)

ADULTERATION OF MILK (WATERED).

In accordance with the provisions of section 4 of the Food and Drugs Act of June 30, 1906, and of regulation 6 of the rules and regulations for the enforcement of the act, notice is given that on the 24th day of June, 1908, in the district court of the United States for the southern district of Illinois, southern division, in a criminal prosecution by the United States against C. Deterding for violation of section 2 of the aforesaid act in shipping and delivering for shipment into interstate commerce adulterated milk—that is to say, milk that contained an excess of water—the defendant having entered a plea of guilty a judgment was rendered by the court in substance and form as follows:

"In the District Court of the United States for the Southern District of Illinois, Southern Division.

"Wednesday, June 24, A. D. 1908.

"Present, the Honorable J. Otis Humphrey, Judge.

"The United States vs. C. Deterding. Criminal information. Term No. 109. General No. 10999. Violation of Food and Drugs Act.

"And now on this 24th day of June, A. D. 1908, comes the United States, the plaintiff in this case, by W. A. Northcott, esq., United States attorney for the southern district of Illinois, and comes also the defendant C. Deterding in person.

"And the said defendant being arraigned on the criminal information herein, for plea thereto says that he is guilty as therein charged, and he having nothing to say why sentence should not be pronounced against him, it is therefore considered and adjudged by the court that the said defendant C. Deterding, for the offense by him committed in manner and form as charged in the said criminal information and as by him confessed, do pay a fine to the United States in the sum of one hundred dollars, together with the costs of this prosecution, amounting to the sum of thirty-one dollars and ninety-five cents, and that execution issue therefor.

"The facts in the case were as follow:

"On October 1, 1907, an inspector of the Department of Agriculture obtained, in St. Louis, Mo., samples of milk from a consignment of that article shipped from Formosa, Ill., by C. Deterding. One of the samples was forthwith subjected to analysis in the Bureau of Chemistry, Department of Agriculture, and the following result obtained and stated:

Fat (per cent) 3.2

Non-fatty solids (per cent) 6.33

Milk is defined in the "Standards of Purity for

Food Products," promulgated under authority of law by the Secretary of Agriculture, as follows:

Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and ten days after calving, and contains not less than eight and one-half (8.5) per cent of solids not fat, and not less than three and one-quarter (3.25) per cent of milk fat.

The milk in question was, therefore, adulterated within the meaning of section 7 of the act, in that it contained an excessive amount of water, thereby reducing its quality and strength.

On January 15, 1908, the Secretary of Agriculture accorded C. Deterding a hearing. As there was nothing disclosed at this hearing tending to show any fault or error in the result of the analysis above stated, the facts were on April 30, 1908, reported to the Attorney-General and by him to the United States attorney for the southern district of Illinois, who on the 1st day of June, 1908, filed an information in the court aforesaid alleging the shipment and delivering for shipment by the said defendant from Formosa, in the State of Illinois, to St. Louis, in the State of Missouri, of adulterated milk with the result set forth in the judgment hereinbefore given.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

Approved:

W. L. MOORE,
Acting Secretary of Agriculture.
Washington, D. C., July 15, 1908.

UNITED STATES TREASURY DECISIONS INTERNAL REVENUE

(T. D. 1384.)

*Additional List of Alcoholic Medicinal Preparations
for the Sale of Which Special Tax Is Required.*

(Int. Rev. Circular No. 727.)

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., July 1, 1908.

To Collectors of Internal Revenue and Revenue Agents:

Continuing the list of alcoholic medicinal preparations for the sale of which special tax is required, published in Circular 713 (T. D. 1281) of December 3, 1907, herewith is given a list of similar preparations, analyzed and passed upon since the date of said circular.

You are also informed that the formula for the manufacture of Dick's Nutritive Elixir, listed on Circular 713, has been modified, and that special tax is not required for the sale, for medicinal use, of the preparation bearing a label showing that it was manufactured subsequent to May 5, 1908.

Your attention is again called to the fact that Circular 713 and the list here given comprise all the preparations which have been analyzed and classed as insufficiently medicated, not including those at one time so held but the manufacture of which has been discontinued or the formulas changed.

No action should therefore be taken looking to the

collection of special tax for the sale of any medicinal preparation the name of which is not found on one of the published lists until this office has been communicated with, and definite instructions received as to the classification of the suspected article. This direction is given only for the purpose of avoiding the collecting or demanding of tax on articles which have been classed by this office as medicinal or might be so classed on examination, and is not to be construed as a change in the attitude of this office regarding articles, properly classifiable as liquor, sold under the guise of medicines. Samples of preparations suspected of being of this character should be taken whenever found and forwarded to this office for analysis:

American Alimentary Elixir.

Aromatic Bitters.

Bismarck Laxative Bitters.

Bismarck's Royal Nerve Tonic.

Blackberry (Karles Medicine Company).

Blackberry Cordial (International Extract Company).

Blackberry Cordial (Irondequoit Wine Company).

Blackberry Cordial (Strother Drug Company).

Blackberry and Ginger Cordial (Standard Chemical Company).

Black Tonic.

Bradenberger's Colocynthis.

Brown's Utryme Tonic.

Celery Pepsin Bitters.

Clifford's Peruvian Elixir.

Crescent Star Jamaica Ginger.

Coca Wine.

Colasaya.

Dr. Brown's Blackberry Cordial.

Dr. Brown's Tonic Bitters.

Dr. Hopkins' Union Stomach Bitters.

Dr. Hoffman's Golden Bitters.

Dr. Sterki's Ohio Bitters.

Dubonnet.

Dubonnet Wine.

Elixir of Bitter Wine (Pleasant Tonic Bitters Company).

Elixir Calisaya.

Eucalyptus Cordial.

Ferro China Bascal.

Ferro China Bissler.

Ferro Quina Bitters.

Fine Old Bitter Wine.

Gastrophan.

Gentian Bitters.

Genuine Bohemian Malted Bitter Wine Tonic.

Glycerine Tonic (Elixir Pepsin).

Greiner's Blackberry Cordial.

Health Bitters.

Herbton.

Herbs Bitters.

Jack Pot Laxative Bitter Tonic.

Jarvis Blackberry Brandy.

Juniper Kidney Cure.

Karlsbader Stomach Bitters.

Kola and Celery Bitters.

Kola Wine.

Kreuzberger's Stomach Bitters.

Lee's Celebrated Stomach Bitters.

Mikado Wine Tonic.

Milburn's Kola and Celery Bitters.

Miod Money Wine.

Neuropin.

Newton's Nutritive Elixir.
 O'Hare's Bitters.
 Old Dr. Jacques' Stomach Bitters.
 Our Ginger Brandy.
 Ozark Stomach Bitters.
 Pepsin Stomach Bitters.
 Peptonic Stomach Bitters.
 Pioneer Ginger Bitters.
 Quinquina Dubennet.
 Rimsovo Malto-Savo Vino Chino.
 Severas Stomach Bitters.
 Sirena Tonic.
 Smart Weed.
 Steinkonig's Stomach Bitters.
 St. Raphael Quinquina.
 Strauss Exhilarator.
 Tatra.
 Tolu Rock and Rye.
 True's Magnetic Cordial.
 White's Dyspepsia Remedy.
 Zeman's Medicinal Bitter Wine.

JOHN G. CAPERS,
 Commissioner.

(T. D. 1387.)

Rum—Denaturation.

Rum intended for denaturation may be removed from distillery warehouses in one or more original packages.

Treasury Department,
 Office of Commissioner of Internal Revenue,
 Washington, D. C., July 2, 1908.
 Mr. Jas. D. Gill, Collector Third District, Boston,
 Mass.

Sir: This office is in receipt of your letter of the 24th instant, inclosing a letter from Messrs. ———, distillers, requesting permission to withdraw "single barrels of rum from bonded warehouse for denaturation." It appears from their letter that in many instances manufacturers, intending to use such rum, first purchase the same in bond, in lots of from one to five barrels, and, as needed, order the same to be denatured and shipped in one or two-barrel lots.

In view of the special provision made in the act of March 2, 1907, for the denaturation of rum and the comparatively small demand for this class of spirits, paragraph 1 of Section 13, Part I, of regulations 30, which provides that "not less than 100 wine gallons of alcohol can be withdrawn or removed at one time for denaturing purposes," is hereby amended by adding thereto the following: *Provided*, that rum not less than 150 degrees proof may be withdrawn for denaturation in one or more original packages.

Respectfully,

Approved: JOHN G. CAPERS,
 BEEKMAN WINTHROP, Commissioner.
 Acting Secretary of the Treasury.

(T. D. 1389.)

Denatured Alcohol.

Denatured alcohol cannot be lawfully prescribed by physicians or put up by druggists in prescriptions.

Treasury Department,

Office of Commissioner of Internal Revenue,
 Washington, D. C., July 6, 1908.

Gentlemen: Your letter of the 29th ultimo has been received, stating that druggists sometimes prescribe denatured alcohol for external medicinal pur-

poses, and asking if druggists can fill such prescriptions without violating the law. You inclose a letter from the collector of internal revenue for your district, stating that, in his opinion, denatured alcohol is not fit for such uses.

In reply, you are informed that this office fully agrees with the collector. Completely denatured alcohol contains kerosene and crude wood alcohol, which render it unfit even for external medication. Moreover, the second section of the law provides fine and imprisonment for any person who uses denatured alcohol for manufacturing any beverage or liquid medicinal preparation, or knowingly sells any such preparation made in part or wholly from such alcohol.

It is clear, therefore, that both the physician who writes a prescription for denatured alcohol and the druggist who prepares the prescription and sells the medicine to the patient are liable to criminal prosecution under the law. Respectfully,

Messrs. ———, JOHN G. CAPERS,
 Commissioner.

(T. D. 1390.)

Marking of Packages of Distilled Spirits.

(Int. Rev. Circular No. 728.)

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., July 6, 1908.

To Collectors of Internal Revenue and Revenue Agents:

Your attention is invited to the second paragraph on page 2 of Circular 724, dated May 29, 1908, which relates to the marking of packages of distilled spirits entered into bond at distilleries or put up by rectifiers prior to July 1, 1908, and having marked thereon the name of the spirits as known to the trade as heretofore provided by regulations 7.

Circular 723 will not be held to require the remarking of such packages in the manner therein prescribed; but where the spirits are to enter into interstate commerce, thereby bringing them within the operation of the pure food law, requiring the marks to be changed to conform therewith, gaugers may, upon the request of the distiller, rectifier, or wholesale liquor dealer, place upon such packages the name of the particular spirits as known to the trade and as is specified in the last-named circular, now known as No. 723, and effective July 1, 1908.

Approved: JOHN G. CAPERS,
 GEORGE B. CORTELYOU, Commissioner.
 Secretary of the Treasury.

RULING ON TEXAS LAW.

The attorney-general's department furnished an opinion to Pure Food Commissioner Abbott of Texas, holding that the pure food law of the last legislature does not require manufacturers to state on the label the percentages of composition of cane syrup and maple syrup of mixtures of these two syrups. The law only applies to adulterated molasses and sorghum syrups. This ruling is contrary to the commissioner's interpretation of the law.

We are again forced to omit our directory of Food Control officials on account of devoting so much space to the addresses delivered at the Convention of The Association of State and National Food and Dairy Departments.

Bausch & Lomb Precision Glassware

Is used in large quantities in U. S. Government Laboratories and is made to conform to the requirements of the U. S. Bureau of Standards. It is made in our own factory in Germany, so that we can follow out our own ideas of excellence. Therefore the graduations are unusually clear and the figures distinct.

¶ This glassware is supplied with or without certificate of the Bureau of Standards as may be desired.

¶ Glassware bearing the stamp of the German Imperial Commission will be imported to order.

¶ Circular on request.


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WHEAT FLAKE CELERY FOOD

is a capital substitute for meat during hot weather—a great source of muscular energy, increasing the power to work. Its continued use never clogs the appetite.



It is most useful for the aged, convalescents, young boys and girls and thin people. Being easily digested and assimilated, it is of great benefit for nervous people. The complete food for children. Those who suffer from dyspepsia will derive benefit from eating it.

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THE AMERICAN FOOD JOURNAL



Vol. III No. 10

CHICAGO, OCTOBER 15, 1908

10c. Per Copy
Monthly \$1.00 Per Year



THIRD ANNUAL CONVENTION AMERICAN MEAT PACKERS' ASSOCIATION,
CHICAGO, OCT. 12, 13 AND 14, 1908.

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Cakes
of All
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It spurs the lazy appetite; it surprises by its exquisite flavor.

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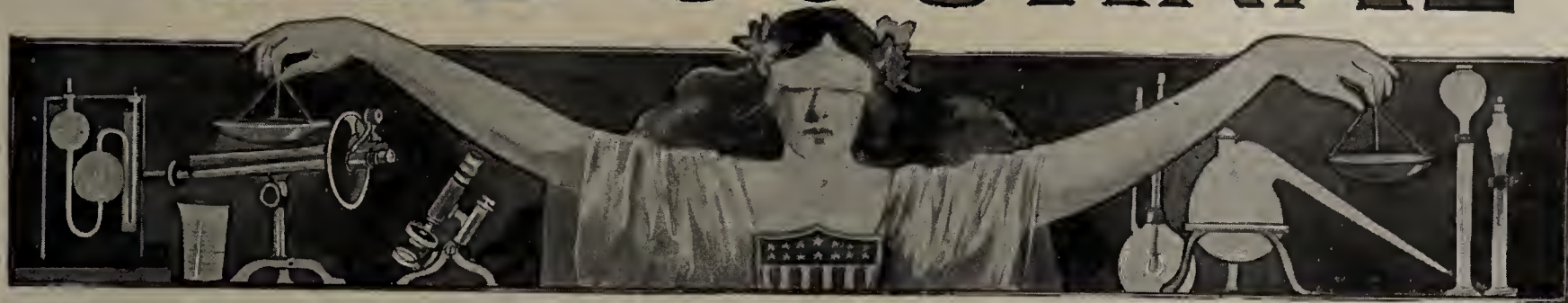
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THE AMERICAN FOOD JOURNAL



Vol. 3. No. 10.

CHICAGO, OCTOBER 15, 1908.

Monthly, \$1 Per Year.
10c Per Copy.

Third Annual Convention American Meat Packers' Association At the Grand Pacific Hotel, Chicago Monday, Tuesday and Wednesday October 12, 13 and 14

MONDAY, OCT. 12TH, 1908.

FIRST SESSION.

The convention was called to order at promptly 10 o'clock by President James S. Agar, who introduced Mr. George F. Stone, President of the Chicago Board of Trade, who delivered an address of welcome, in which he pointed to the importance of the packing industry to Chicago and the country, to show that the packing business represents more in dollars and cents than any other manufacturing business in the United States. Among the figures Mr. Stone quoted were

SHIPMENTS FROM CHICAGO.

Dressed beef	931,500,000 lbs.
Cured meats	753,300,000 lbs.
Lard	393,600,000 lbs.

RECEIVED AT CHICAGO—YEAR 1907.

Live stock	15,249,000 head
Valued at	\$319,200,000
Value of U. S. exports of packing house products for the last fiscal year	\$143,000,000

President Agar then submitted his annual address to the convention, as follows:

President's Address.

Members of the American Meat Packers' Association:

It is customary for the president of an organization like the American Meat Packers' Association to submit to the members, at their annual meeting, a report or summary of the history made and work accomplished in the preceding year. I have no desire to inflict upon those present a recital, either in detail or summarized, of the activity of the association during

the past year, nor to engage in any laudation of the industry of its officers. What has been done is well known to the members of this association, and a rehearsal here is therefore unnecessary. I may be permitted, however, to make some general observations, born of the experience I have had as president of your association during the past year.

This is the third annual meeting of the association, and if there was any doubt, when the association was formed, of its value to the allied industries in which we are engaged, that doubt has been entirely dissipated. All that time it was believed that much good could be accomplished by bringing into close association and harmony the concerns engaged in the various meat industries, and our history since that time has demonstrated that this belief was well founded. No other evidence is necessary than a glance at this highly representative assemblage.

The past year has been a great strain upon the faith and good temper of men engaged in all kinds of business. A perfectly cloudless commercial sky was followed by a period of financial disquietude that unsettled business equilibrium and almost destroyed commercial faith. It is a matter of congratulation, which I think we may justly appropriate to ourselves, that in spite of this condition, disasters to those engaged in the meat industries have been few and the trade generally is in a staunch and sound condition.

ASSOCIATION TEACHES SAFE AND SANE METHODS.

The few cases of disaster that have occurred have generally been due to the abandonment of sane and conservative methods, and I question whether any

other business of the same magnitude has had so few reversals. And I therefore say that there is much that we may be legitimately proud of in the record of the past year. I think this association, through the example of its members, makes for conservatism in business, and that it has a right to some credit for the safe and sane methods generally in vogue amongst us, and for the comparatively satisfactory conditions of trade.

We believe here that much good may be accomplished by unity and co-operation amongst our members through the machinery furnished by this association. It must not be forgotten that unwarranted and unjust attacks upon any of the industries represented here reflect upon and injure the entire business and the individuals engaged therein. The unity that I refer to is the unity of purpose to keep the commercial standard and integrity of our business up to the very highest, and to defend as one man those in our ranks who may be the victims of such attacks.

And by co-operation I do not mean the elimination of competition, if such a thing were possible, which we all know is not. Competition is as necessary to any business as is the circulation of blood to the human body. But the competition which we believe in is the competition of fair trade, and not competition of unfair trade.

I believe that this association has done much, and will continue to do much, in the elimination of cut-throat methods. We will be absolutely fair and honest to the public just as long as we are fair and honest to one another.

A CESSATION OF ATTACKS ON BUSINESS.

Your officers have studiously watched the trend of legislation and public thought, and it is clear to me that our friends the legislators and the public are awakening to the fact that the business in which we are engaged is as honestly and as efficiently managed, with as much respect to the duty owed to others as is any industry in the country.

Prodding the industry in which we are engaged in the ribs with a sharp stick has in the past been a highly exhilarating pastime for certain people. It has never occurred to the gentlemen engaged in that pastime that, instead of correcting evils, which in a great majority of cases existed only in the willing imagination of the writer, they were inflicting a serious and lasting injury upon the commerce of our country, and not affecting the men actually engaged in the business nearly so much as they were the farmer and the producer. I believe that poking legitimate industries in the ribs with a sharp stick has ceased to be amusing or profitable, and that the packing and allied industries may look forward to a cessation of this form of guerilla warfare.

I respectfully recommend that the incoming officers be directed to enlarge the scope of this association, and create machinery, even though it involves some expense, to collect and codify, for use of the members of this association, legislation, rules and regulations of the various states and the federal government affecting our various industries, and that these digests be transmitted to each member of the association, together with such comments and advice as may seem to be warranted. It may be necessary that some of these laws be submitted for legal interpretation, but I believe it is money excellently spent.

What we must have is unity of action in such matters. The attitude and interpretation of each member

of this association, with reference to a particular piece of legislation, rule or regulation, should be the attitude and interpretation of all, and therefore I contend that the collection and digesting of laws as they are passed, and rules and regulations as they are published, should be undertaken.

I take this opportunity to thank the members and my fellow officers for their kindness to me during my term as president. I have been most loyally supported, and I am indebted to them for many courtesies. I beg to assure them, as well as every other member of this association, that my heart and hand are theirs to command at any time.

After the president's address the calling of the roll showed the presence of over 650 delegates from every state of the union. Lack of space prevents our printing the names of the delegates in full.

The reading of the minutes of the preceding meeting was dispensed with. The report of the executive committee was then read to the convention in open session and adopted and is as follows:

Report of the Executive Committee.

To the Members of the American Meat Packers' Association:

It is a self-evident fact that this association is a success. It is fulfilling in every way the purpose of its existence. The record of the past year is one of which we may all be proud.

Though the year has shown many tangible things accomplished, we are inclined to believe that what is of most importance is that through this association a harmony pervades the trade which is an assurance that this association is now established on a basis which guarantees that our main purpose of promoting the general interests of the packinghouse industry will be carried out in the years to come.

We emphasize the fact that this association has not and will not act upon subjects involving prices or competition. But where it is proper and right for us to do that which will tend to improve our industry as a whole, or to act for and represent the interests of all the trade, we will do so to the best of our ability.

The past year has been an extremely active one for your officers and committees. Public matters of direct interest have arisen time and again during the year, and your chosen representatives have not hesitated to give liberally of their time in your interest.

During the year the meat inspection regulations of the Department of Agriculture were classified and amended. Various and highly important new regulations were issued, and some of the old ones changed. Your committee to confer with government officials will report upon this subject in more detail. The same committee will also inform you as to the renewed effort of Senator Beveridge to place the cost of inspection upon the packers and to compel the dating of all packages.

FIRE INSURANCE AND OTHER MATTERS.

Owing to the enormous amount of fire insurance placed by members of this association, and because of the widely varying rates, we thought it advisable to investigate this feature of our business. The fire insurance committee will report to you its interesting and highly valuable findings.

At the suggestion of Secretary Straus, of the Department of Commerce and Labor, the "National Council of Commerce" has been formed, for the purpose of promoting a closer relationship between the

federal government and the commercial and industrial interests of the country. Our association qualified as a member of it and has a representative upon the executive committee of the council.

Important business interests formed a committee during the year to request that the tariff be revised, and if revised that the work be done by a commission of experts appointed by the president. This association was represented upon the committee.

It was likewise represented upon the committee formed to oppose an increase in freight rates, and which may have further work to do, as there seem to be indications that the railroads have only postponed action on the proposed increase.

At the request of Mr. James B. Reynolds, chairman of the commission appointed by the president to confer with a like commission appointed by the French government for the purpose of expediting trade between the two countries, members of this association furnished valuable information to the commission.

The commission appointed by the University of Illinois, at the request of this association, to investigate the effects of saltpetre upon the human system, has finished that part of the test which concerns the feeding of the test squad. It has a large mass of analytical and other data which must be reviewed, and then the conclusions will be drawn by the commission. This will require several months. We are informed that this investigation is the most scientific of its kind that has ever been made.

HEARTILY ENDORSE MEAT INSPECTION LAW.

We desire to renew the statement of our belief, expressed last year, that this association should heartily endorse the meat inspection and pure food laws. Any measure which tends to further guarantee the healthfulness of the products, when properly administered, should and does receive our loyal support. Our national authorities have worked zealously to carry out the purposes of these laws, and the meat packers have given them their co-operation in every possible way. Naturally, differences of opinion have arisen, but no more than might be expected, and the decisions in each case made by the government officials have been put into practice by the packers without friction.

We are glad to say there has been little new legislation upon food products. So many new laws were passed last year and the year before that food law officials have been fully occupied in getting them into operation.

Some idea of the active work done by this association during the year may be seen in the fact that the treasurer has paid for postage alone more than \$500. Twenty-five thousand letters and bulletins have gone out from our association offices, and more than three thousand letters have been received. Each has received careful and prompt treatment. Requests for information or action in behalf of the trade or individual members have received the best possible attention and service at all times.

ARE NOT ORGANIZED FOR PROFIT.

We do not expect the treasurer to report a large balance. The year has been an expensive one, particularly for committee meetings and traveling, but as we are not organized for profit, we think you will agree with us that the results attained are worth many times the cost.

We again urge upon you the importance of every member making it his particular business to bring in

as many new members as possible; every concern in the trade, or doing business with it, should be members, and with the two-year record of this association there should not be the slightest trouble in getting them.

In conclusion, we desire to say that your executive committee has performed its duties carefully and conscientiously, and it has realized that so important an industry as ours should be so represented as to win the approval of all with whom we have come into contact.

We thank you individually and collectively for the unfailing support you have given us. Respectfully submitted,

THE EXECUTIVE COMMITTEE.

After the report of the executive committee was adopted the report of the treasurer was submitted to the convention and was unanimously adopted.

The next committee to report to the convention was the committee to confer with government officials. This report was read and evoked great interest among the delegates and was unanimously adopted by the convention. We herewith submit the report to our readers:

Report of the Committee to Confer with Government Officials

To the Members of the American Meat Packers' Association:

Acting under its title, your committee has endeavored to conscientiously represent you in all those matters having to do with national and state governments which were of importance to you. In doing so we have ever taken the broad ground that we will heartily co-operate with governments in the administration of laws and regulations intended to guarantee the interests of consumers, and which will assure buyers of American meat food products that no other country can produce their equal. We have also given our serious thought and counsel to the framing of regulations which, while always having the consumer in view, would permit of practical operations without necessarily increasing the cost of production and, therefore, of the product.

It is a pleasure to us to state that your committee has always received a most respectful hearing from the many officials with whom it has come in contact, and we believe that they must be impressed with the fact that this association stands for nothing but what is right and just for all concerned.

THE BEVERIDGE AMENDMENTS DEFEATED.

As was the case last year, perhaps the most important single subject with which your committee has had to contend was the renewal of the effort of Senator Beveridge to place the cost of inspection upon the packers and to require the dating of all packages. We are at a loss to understand the motive which inspires the zeal of the senator from Indiana upon these questions.

As to the requirement that packers shall pay the cost of inspection, there is not the slightest doubt that if this measure were passed it would result in many of the smaller packers being forced out of interstate trade; in raising the cost of meat food products to consumers or to decrease the price of live stock to the raisers; in greatly increasing the number of uninspected establishments; and still other great harm would come from it.

The dating measure would put a premium on today's goods compared with yesterday's, when there is every evidence that one is as good as the other. It

would result in curtailing the manufacture of all goods which are boxed, wrapped in canvas, put in cans or pails or other forms of packages. Neither manufacturer nor dealer could keep a sufficient supply on hand to meet demands, merely because the latest date would always have preference. From all of these conditions higher prices would inevitably result.

Senator Beveridge pressed these bills so hard that the Wholesale Grocers' Association, Retail Grocers' Association, and the livestock associations, together with our own, insisted that public hearings be held upon them before a vote was taken. We are pleased to report that neither of these measures became law, but their author has publicly stated that he will bring them up again at the next session of congress and will endeavor to have them passed.

In all such matters as your committee has had to take up with officials of the Department of Agriculture your committee has been gratified in witnessing the dignified, careful and judicial administration of a great government department. Knowing that the purpose of the meat inspection law is to guarantee that our meat food products are from sound, healthy animals, wholesome and prepared under the most sanitary conditions, we have always co-operated with the government in attaining this high purpose, and such representations as we have had to make to the department concerned the practical operation of our plants with a view to keeping down the increasing cost of operation while complying with every feature of the law. Some of our requests have been granted, others modified and some were refused, but in all cases your committee has made its representations honestly, conscientiously and straightforwardly.

Among the more important matters we have discussed with the department were the following:

DISCUSSED WITH THE GOVERNMENT OFFICIALS.

New Regulations.—All during last year the department was engaged in revising the regulations under which the meat inspection law is administered, so as to perfect the work which its first year's experience under the law showed to be necessary. Secretary Wilson invited your committee to meet the various bureau and other chiefs of his department to discuss the proposed new regulations, and the invitation was gratefully accepted. Each regulation was carefully studied by your committee and was discussed at the meeting earnestly and freely. The new regulations went into effect April 1st, and embodied some important changes, having in view a more ideal enforcement of the law than before. As you have been operating under these regulations for several months you are now familiar with them.

Denaturing Fats.—On April 1st the department issued a regulation that all edible fats must be denatured with kerosene, creosote or an aniline dye. As the requirement was so radical, and was without notice, your committee requested that the order be suspended for thirty days until the trade could conform to it. This request was granted. Meanwhile the purchasers of these fats—soapmakers, acid, oil and other manufacturers—insisted that their industries would be ruined if the ingredients mentioned were used. The department then decided, as an alternative, that all such fats should be plainly marked and every shipment be checked by the inspectors.

Additional Stearine.—Owing to the demand from warm climates for lard which had not disintegrated,

your committee requested that permission be granted to use a larger percentage of solid matter of pure lard in the product for such countries, and this was done.

Imported Meat Food Products.—As it was manifestly unfair to permit foreign meat food products to enter this country and compete with our products regardless of whether they were from healthy animals or were prepared under sanitary conditions, the department has ruled that all such products must come from countries having inspection similar to our own, or else be barred.

Returns.—Much difficulty was experienced between buyers and sellers where the former rejected shipments because of improper sizes, shipping errors, or for other reasons, because the department would not permit their return, but this difficulty has been overcome by a series of regulations permitting such returns under the strict supervision of the inspectors.

Sours.—Where meats turn sour in pickle the exact reasons are not known, but the department still has the subject under investigation and will probably report the causes within a short time. Recent English investigations would indicate that such meats are perfectly wholesome, but the exact facts will have to be established before an opinion can be expressed.

OTHER MATTERS TAKEN UP AT WASHINGTON.

In order not to weary you with details we will say, briefly, that your committee has also discussed the following subjects with the department: Labels, brands and stamps, butchers' fat, cereals, casings, smoking and processing, clarifying agents, defective tins, colors, potato flour, tank room partitions, branch houses, returned burlaps, lard oil cloths, condemnations, shipments under regulation 50, pigs' feet, cooking, record of incoming shipments, new floors, live stock shipments, brine, gelatine, incompetent inspectors, and several other subjects. Your committee has also taken up many cases of individual interest to our members and has endeavored in each case to represent them properly. The same attention has been given to all such requests regardless of their origin.

The department has been requested to furnish each inspected establishment with a copy of the instructions to inspectors in order that we may co-operate with them, and we are informed that this will be done.

Your committee would suggest that more authority should be given to the district inspectors to use their own judgment in exceptional cases, where the regulations clearly do not cover points at issue, and where quick decision is essential to prevent spoiling of the product.

The War Department is still purchasing uninspected meat in some cases, and we have been unable to secure a ruling requiring the purchase of inspected meats only, or with exceptions only in very rare cases.

We would repeat a paragraph of our last report which says:

"We suggest that the idea of conference between interests operating under national laws and officials of the national government having such laws in charge is one which is to be commended. It is effective in securing rigid enforcement of the law, without friction, and where both sides enter into conferences in a spirit of fairness the ultimate object—the enforcement of the spirit as well as the letter of the law—can be more easily accomplished and with more general satisfaction.

"It is our opinion that the meat inspection law is a

good one, and we should uphold it cheerfully and heartily. It is the law of our land, and we maintain that American packers will not take second place to any other class as law-abiding citizens."

Your committee desires to thank you individually and collectively for your co-operation and support during the year, and to express the hope that our report will meet with your approval. Respectfully submitted,

MICHAEL RYAN, *Chairman*,
JAMES S. AGAR,
GEO. L. MCCARTHY.

The next report was the Committee on Fire Insurance which was read by the chairman of the Committee, Mr. R. H. Hunter of Chicago, and after a discussion on the subject and an address by Gen. Michael Ryan of Cincinnati in which Gen. Ryan stated that at first he was not in favor of reconstructing his business to meet the conditions of the Meat Inspection Law but now considered that we are fortunate in having the law, the report of the Committee was unanimously adopted, after which convention adjourned until 2 p. m.

Afternoon Session.

The first address on the program was by Dr. A. D. Melvin, Chief of the Bureau of Animal Industry, who has charge of the meat inspection service of the country, who expressed his pleasure at the success of the American Meat Packers' Association, and declared that the success of the Meat Inspection Service was entirely due to the hearty co-operation of the packers. Without the assistance rendered by the trade the Government would have been unable to have brought the inspection service to so high a level in so short a time. The Department of Agriculture, he said, was primarily interested in the success of the agricultural industries, but must consider the consumer also. He had no hesitation in declaring, and he believed that foreign Governments agreed, that the United States meat inspection was the most efficient in the world. He was in a Western packing house, sent very recently, where he met a representative of the German Government whose business it was to report the packing and agricultural questions. This Government official had just concluded a trip through the packing house, and declared that one particular house he had just seen was the most perfect slaughtering house in the world.

Mr. Charles G. Schmidt, President of the Cincinnati Butchers' Supply Co., followed Dr. Melvin and was particularly happy in his anecdotes and his poetry, and can justly be called the *poet laureate* of packendom. His little Dutch dialect ditty entitled "Some vocks vont like idt but odder vocks wvill" captured the convention.

He introduced his talk on the value and responsibilities of the associate members with the following story: Johnnie had the unfortunate habit while eating of spilling his soup on the table. His father reprimanding him said: "Johnnie, you little piggie, if you don't stop spilling your soup you will grow up to be a hog. Do you know what a hog is?" Johnnie quickly said, "Yes, piggie's papa."

The balance of the afternoon session was taken up by the reading of the following technical papers:

"Credits and Collections"—By Lewis E. Birdseye (credit man of the Schwarzschild & Sulzberger Co.), New York.

"Machinery as an Economizer"—By Thomas W. Taliaferro (Vice-President Hammond, Standish & Co.), Detroit, Michigan.

"Packinghouse Products as an Industrial Factor"—By Geo. L. McCarthy (Manager The National Provisioner), New York.

"Packinghouse Stock Keeping"—By Frank L. Erion (Western Adjustment Co.), Chicago.

In the evening the delegates were entertained by a first-class vaudeville show in the main dining room of the Grand Pacific Hotel by the Chicago Entertainment Committee.

Tuesday, October 13th.

Morning Session

Convention called to order by President Agar, the first address was by Prof. H. L. Grindley of The University of Illinois entitled "Importance of Research to Packers." This paper elicited great applause from the delegates and we herewith reproduce the paper in full for the benefit of our readers.

IMPORTANCE OF RESEARCH TO PACKERS.

BY DR. H. L. GRINDLEY, OF THE UNIVERSITY OF ILLINOIS.

I fully expected to talk to you to-day upon the subject assigned me upon the program. I regret to say that I am unable to do so because it has been impossible for us to get the vast amount of important and vital data which has resulted from the saltpeter investigation into shape to present to the commission having charge of this important research so that they could pass upon the same. This being the case, as an individual member of the commission. I have no right to present at this time even an outline of the methods which have been used in this work. At your next annual meeting, I assure you, we will be able not only to give the details of the methods but also the detailed results of the saltpeter investigation if at that time you are still sufficiently interested in the matter.

In this connection I should say that the detailed results of the saltpeter investigation which closed experimentally the first of last August, are being put into proper shape as rapidly as possible for the deliberation of the commission. Unless unforeseen work arises in this task of compilation, the material will be ready for the commission by the first of next January. The members of the commission will undoubtedly require two to four months to study the mass of information submitted to them. Following this, the findings of the commission will be published immediately.

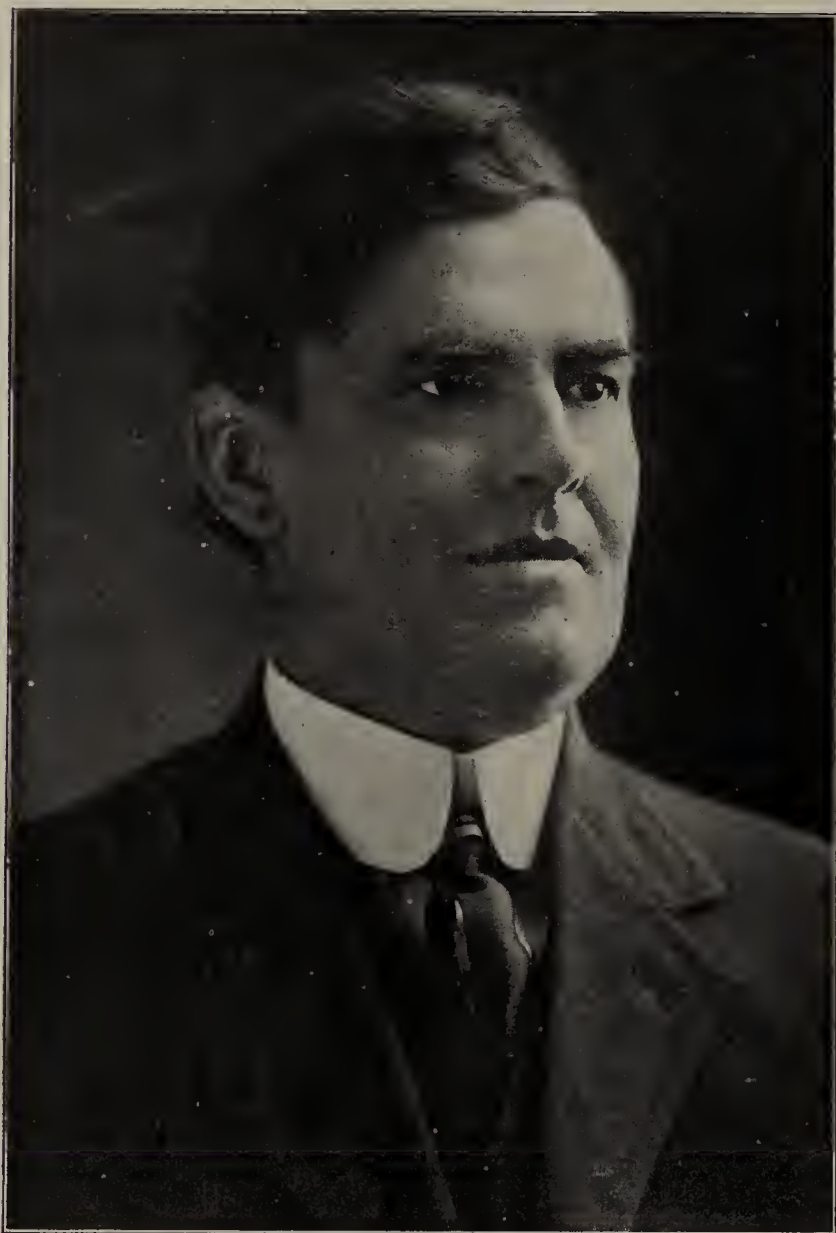
Since I have been assigned a place upon your program, I cannot refrain from taking the opportunity of saying a few words upon a subject which it seems to me is of vital importance to the far-reaching and all-important industries represented in this convention.

Exact, practical, scientific knowledge of the numerous and varied interests in which you are all individually and collectively vitally concerned is greatly needed for the successful and progressive, present and future, growth and development of your enterprises. Complete ignorance of 99 per cent of all classes of the people of this country, including yourselves, as to the exact, fundamental, practical and scientific facts relating to the true character and nature of the raw materials, and to the processes of preparation, manufacture, preservation, and distribution of food products which form one of the largest part of the industries which you represent has caused two or three of the most trying ordeals and difficult problems and sit-

uations which the business you represent ever experienced or confronted.

If as much sagacity and forethought had been shown and if as much energy had been exerted in lines of work, having in view the prevention of such embarrassing situations, as has been shown and exerted in expansion and development, in apparently more material lines of the packing house industries, the embalmed beef scandal of 1899 and the packing house agitation of the spring of 1906 could have been entirely prevented.

The previous application of the same means and methods that were later slowly but effectively potent



DR. H. L. GRINDLEY.

in disproving the accuracy of the original charges causing these scandals, namely, a thorough, exhaustive, unbiased, practical, and scientific study of the entire situation in each case in such a way that the exact facts and the full unadulterated truths were dug out and brought to the surface by reliable and trustworthy authorities, would have made the above scandals impossible.

In other words, it must be admitted by all that these unfortunate situations were caused through lack of knowledge relating to the exact nutritive value, the entire wholesomeness, the ordinary cleanliness, the absence of preservatives, the completeness of sterilization, the care and precautions taken in the inspection, preparation, and keeping of meats and meat products. Not only were the leaders of these calamities ignorant as to the above mentioned facts, but the masses were ig-

norant, as were also the people interested in the packing house industries. That you were ignorant as to the vital and fundamental facts and data above mentioned was clearly demonstrated, since you were unable to produce them as evidence when you clearly saw the scandals developing.

I maintain that one of the greatest immediate necessities connected with your all important and vast business of preparing and manufacturing the meat food products for the world is more exact knowledge, both of a practical and scientific nature as to the raw materials and the manufactured products resulting from the same. This knowledge should be for all alike, the producer, the consumer, and the manufacturer.

North and South America are destined to continue to be the source of the main meat supply of the world. In consequence of the large amount of capital and other resources which the members of this association have in the industry as manufacturers and as a result of this fact, the interest they must have of necessity in the production of meat and the consumption of meat products, the members of the American Meat Packers' Association will be very important and potent agencies directly and indirectly, in the still further development and control of the meat production, of the manufacture and preparation of meats and meat products and they can if they will influence decidedly in a beneficial manner the character and extent of the meat consumption of the masses.

That this influence may be most effective and also made available at an early date I insist that you must plan immediately a vigorous campaign which will lead thorough studies, investigation, researches, conferences, etc., to a more detailed, extended knowledge of the following named subjects: First, the economic production of beef, pork and mutton upon our lands which are constantly increasing in money value, and at the same time continuously decreasing in productiveness. Second, the best methods of eliminating and reducing the ravages of the diseases of meat producing animals the effects of which increase the cost of production and the cost of the manufacture, and at the same time reduce the consumption of meats on account of the dangers thereby engendered to human life. Third, the most economic and sanitary methods of the conversion of the raw materials which are continuously increasing in value into the manufactured products. Fourth, the best methods of storing and preserving meats and meat products of all kinds. Fifth, the true food value, healthfulness, or harmfulness of the manufactured products and of each constituent normally present, or which has been added to the preparation for any purpose whatever. Sixth, the most economic method of preparing, serving and utilizing meats and meat products in order that they may become of more and increasing value to the human body. Seventh, the influences, both beneficial and injurious, of meats and meat products upon the normal nutrition of men.

It seems to me that there are two ways by which these very desirable ends may be approached. First, the members of this association would find it greatly to the benefit of their undertakings if they would throw more responsibility upon their own scientific men. I know positively from personal experience that if you would take more of your perplexing difficulties and questions directly to your chemists, to your bacteriologists, to your veterinarians, and to your own trained food inspectors for consultation, advice and so-

lution, you would soon realize that these members of your working force can be made into unusual, effective agencies in your place for development, enlargement, extension, and protection. The work of your chemists and other scientists would be much more valuable, even considered from the dollars and cents standpoint, if they were afforded laboratories and facilities that compared somewhat favorably at least with the quarters and accommodations now given to your office clerks.

Second, while you would find that the above procedure would greatly help in matters pertaining to the internal and specific interests of your varied lines of work, this method alone would not be sufficient to cover the more general and extended phases of the lines of inquiry which I have mentioned. This is especially true with those lines of investigation which have been bearing upon the questions relating to the best methods of storing and preserving, and the true food value and healthfulness, and the sanitary conditions of the products as they are placed upon the market. For these phases of the work there should be a thoroughly equipped research laboratory conducted and manned with a thoroughly competent corps of workers. The producer, manufacturer, and consumer should be able to look with assurance and confidence to this research laboratory for exact, practical and scientific information upon any of the subjects mentioned under the above headings. It should be the function of this research laboratory to discover the truth along any of the above lines by thoroughly planned and devised scientific researches and investigations. The workers and directors of this research laboratory would not be faddists, nor would they be mere theorists, but they would be practical and scientific laborers, whose only aim would be the discovery of exact truths by practical and scientific methods.

There are a number of important problems of fundamental importance to the consumer, producer, and manufacturer which could be started to-morrow if a research laboratory was ready and properly equipped for work. In this connection I would mention investigations to determine the chemical, bacteriological and physiological changes, if any, occurring in meats, and the effects, if any, which cold storage has upon the tenderness, the flavor, the nutritive value, and the healthfulness of meats. This study would also include experiments to determine the most suitable conditions of temperature and time and the best and most economical methods to use in order to make the flesh of meats the most desirable as to tenderness, palatability, digestibility, flavor and nutritive value. Undoubtedly cold storage is at present the best method known for the preservation of food products, and its true value for this purpose should be determined accurately and in an entirely unbiased manner for the good of the manufacturer, the producer and the consumer.

Second, investigations should be made to determine the complete and detailed chemical composition of a large number of representative samples of commercial, edible flesh and meat products of all kinds by improved and refined methods in order to establish without doubt the true and just standards for the chemical composition and nutritive value of meat products. Such standards are now becoming necessary. They can only justly be derived as a result of exhaustive, extensive, and painstaking investigations and researches.

Third, a study of the cause and prevention of the

so-called "scouring of meats," including the determination of the influence of these products upon the normal health of men. At present, these "sour meats" are a source of considerable loss, not only to the packer, but to the poorer classes of consumers. Since it is more than probable that such meats are not in any way injurious to health, arrangements should be made if that is true to sell these products at reduced prices to the poorer people.

Fourth, investigations having in view the decrease and if possible the ultimately eradication of those diseases in cattle and swine which at present produce much loss to producer and manufacturer and at the same time threaten the health of the public. The field for study and investigation along these lines is so large and difficult that it would be a hard matter to decide exactly where the attack should be made and how it should be conducted.

Fifth, thorough, practical, exact and conclusive investigations comparing the relative nutritive values of the vegetarian diets on the one hand, and mixed diets containing the usual large proportion of flesh foods on the other hand. Results of careful studies show that 35 to 40 per cent of the food consumption of the better classes in the United States consists of meats and meat products. It must be admitted by all that those people are as a whole most efficient who consume a reasonable proportion of animal food, notwithstanding the recent tendencies of the discussions as to vegetarianism or the necessary protein requirements of man. What is most urgently needed in this connection at present is exact scientific facts obtained by practical experimental methods.

Sixth, investigations for the purpose of isolating and determining the character, the composition, the chemical properties and the therapeutic value of the active principles of glands and other animal tissues, ferments, toxins, antitoxins, and similar bodies with the object of obtaining exact knowledge of the distribution of pharmacologically active substances in the tissues of animal bodies so that the relation between chemical composition, chemical constitution, tissue location, and pharmacological action can be established. Recent scientific investigations indicate conclusively that the therapeutics of the future will deal more and more with products obtained from the animal body.

Seventh, fundamental and extensive experiments should also be taken up at once in animal nutrition which forms a most important factor to the packing industries as well as to our agriculture. Our present practical and scientific knowledge regarding the principles of stock feeding and breeding are indeed far from satisfactory, comprehensive and exact in nature.

Numerous other vital questions which should be investigated by such a research laboratory could readily be mentioned, but these are sufficient for my purpose at present. Is it not evident from what has been said that much benefit would result by the active and vigorous co-operation of the members of this association with prominent and eminent scientific investigators with a view of increasing our fundamental knowledge of the facts, relating to the subjects which I have mentioned and which it must be admitted by all are so intimately and closely allied to the industries which you represent? Is it not evident that we need to plan a vigorous, practical and scientific campaign against the unknown? Upon very short consideration there

can be named to your officers a committee of four or five prominent authorities and investigators, along these lines which could clearly and unmistakably demonstrate to a committee appointed from this association, a number of ways in which this organization and its members could promote to a marked degree through their influence and co-operation, the undertaking and carrying out of some of the lines of work which I have mentioned.

The next address was by R. G. Eccles, M. D., of Brooklyn, N. Y., entitled *The Preservative Situation*, as follows:

THE PRESERVATIVE SITUATION.

BY ROBERT G. ECCLES, M. D., BROOKLYN, N. Y.

There are two sharply contrasted aspects of the preservative situation, one of which you gentlemen represent, while the other should be, but unfortunately is not, properly represented by the medical profession. Public economy and public health are the things that are at stake. Shall the poor be compelled to pay double for all food, and both rich and poor have their lives sacrificed by thousands to the Moloch of tradition?

The economical feature you are already quite familiar with, and are prepared to take care of the case on that score. You know that not to use preservatives is not to be able to supply the market with a full line of goods without greatly added cost. This cost, every student of political economy knows, must be finally paid by the consumer, whoever may be called upon to take the load at the beginning.

To reduce the supply of food by getting rid of that which quickly perishes is to compel the non-perished to bear the double load of expense. Juggle as you please with this phase of the situation, but be assured that no one can, by any process of legerdemain, keep down prices while diminishing the supply and increasing the demand.

If ignorance or venality force such a situation the hour is sure to come when the poor must suffer. It is as certain as any decree of fate. Up must go the prices, with any degree of arrest in the use of preservatives, and the height will be determined by, and correspond exactly with, the completeness of their suppression.

HYGIENIC SIDE IS THE MOST IMPORTANT.

But the economical side of the subject is of small importance to the people as compared with the hygienic. As a medical man the latter feature appeals to me as paramount. The monetary loss from decay is the merest of trifles as compared with the sacrifice of life and the associated agony of disease that is sure to follow such suppression.

Let me then give you a few facts—facts that the ultra-advocates of preservative-free food dare not deny. In presenting them permit me to use as a text a quotation from no less a person than the chief American advocate of so-called pure food. I quote from Bulletin 13, Department of Agriculture, Division of Chemistry, p. 263: "Hundreds of cases are on record of death produced by ptomaines in food which was entirely palatable. Now, in such cases, granting that an antiseptic may have some injurious effect, it is perfectly demonstrable that that injurious effect is far less than that produced by those products of fermentation, and in this instance the public health would be conserved by the addition of an antiseptic."

These were wise words from the chief actor in the

pure food movement, but they were uttered without being placed in the scale against the injuries due to the use of unpreserved foods. The assumption has since been made that more people have suffered and died from the use of preservatives in food than from so-called ptomaine poisonings. Again and again have they been begged to show one single death, or one single individual maimed by preserved food.

If, as we are here told, "hundreds of cases are on record of death produced by ptomaines in food," what has become of the corresponding hundreds killed by preservatives in food? Surely someone, somewhere, must have heard of such cases. A sensation-loving press could hardly have let them be buried before the lurid headlines had emblazoned the facts.

THOUSANDS KILLED BY GERM-LADEN FOOD.

Since these words were first uttered a tremendous stride has been made in our knowledge of the numbers of people killed by germ-laden food. While the most of the medical men of America have been asleep, as far as this subject is concerned, such has not been the case to so great an extent among the leading medical men of other countries.

The Board of Health of Glasgow, Scotland, in 1897 and 1898 made an investigation as to the cause of epidemics of typhoid fever in that country. In the report that they made, that covered forty years, they say: "If we consider the history of enteric (typhoid) fever in detail, we observe that, everything like an epidemic prevalence has been caused by the distribution of milk" (Amer. Year-Book of Med. and Surgery, 1898, p. 1004.)

Now milk is a food, and one that disease-germs thrive in. What is likely to happen if a few typhoid germs get into a pail of milk? Professor Conn, of Wesleyan University, and Professor Metchnikoff, of the Pasteur Institute, Paris, France, have calculated increases of over 16,000,000 in a single day, figuring on their known rapidity of growth (Story of Germ Life, p. 21, and Nature of Man, p. 348). This is of course where no interfering cause lessens their fecundity. In milk the living elements, as well as some preserving substances that nature has placed there, caused the development to be slower than this.

The experiment, however, has actually been made for this fluid and the actual numbers counted, so that we know exactly how rapidly they multiply therein. You can find the report in Bulletin 451, of the Hygienic Laboratory of the Public Health and Marine Hospital Service, p. 24. I advise all of you who can to try and secure copies of this bulletin. It is on Milk and its Relation to the Public Health. It shows that, by actual count, 78 microbes of typhoid fever became 40,000,000 such microbes in a week. This number was found in one cubic centimeter of the milk, which is equal to about 16 drops.

It is evident from this that should a pint of milk be started with just enough germs to give one person typhoid fever, then it follows, with the certainty of mathematics, that in one week these would multiply into enough to give the disease to half the people of the entire United States. If enough was there at the start to give the disease to but two persons, then a week would suffice to produce a sufficient number to give the disease to every person in this country.

MILK THE CHIEF CAUSE OF DISEASE.

Now please notice the fact that this is not a sensational statement, but the utterance of a sober, demon-

strated fact. Notice too, that the Public Health and Marine Hospital Service of the United States is responsible for its publication. Can you now wonder at the statement of the Glasgow Board of Health that in forty years they had discovered milk as the chief and almost only cause of epidemics? There is plenty of evidence of other kinds of food, such as meat, oysters, fish, soups, etc., causing disease, but there can be no doubt but that milk, in some form, is the principal carrier. Ice cream is one of its most common forms in which it spreads this disease.

On pages 49 to 92, inclusive, of Bulletin 41, you will find a table of 179 epidemics of typhoid, in this country and Europe, with a few from the antipodes. On pages 116 to 134 another long table of epidemics of this disease is given that were likewise due to milk. Here is a total of 317 epidemics traced directly to one kind of food—milk.

Please make no mistake here. These were not 317 cases of typhoid fever, but 317 epidemics, each one of which had many cases. The one epidemic at Oakland, California, had alone 362 cases with 228 deaths. One at St. Pancras, England, had 431 cases with 62 deaths.

Permit me to quote from the report the following words concerning one other epidemic out of the 317: "Stamford, Conn., a town of 15,000 population, had for some months been comparatively free from typhoid fever. During the nine days following April 14, 1895, 160 cases were reported, in addition to 24 noted as suspicious. One hundred and forty-seven out of the 160, and all of the suspected cases, had used milk delivered by one dairyman, B. Between April 15 and May 28, 386 cases living in 160 houses were reported. The dairy was closed April 21, and on May 6, just 15 days after the sale of milk was stopped, the outbreak had practically subsided. Of the 386 cases, 352 lived in houses taking milk from dealer B., 12 were known to have used this milk at a cafe supplied by him, 2 obtained it at a bake-shop selling the same milk, and two obtained it in other ways, making 368 cases so traced, or 95.3 per cent. Eight cases were supplied directly by a producer, E. B. L., who produced the bulk of the milk peddled by B. This makes 376, or 97.1 per cent connected with this milk supply. * * * It was estimated that 3,000 quarts of milk were peddled daily in Stamford, of which B. supplied about 275 quarts. * * * The disease followed the milk of this one dairy, B., and of that distributed to the five houses personally supplied by E. B. L." (p. 25.)

After such a record of suffering and death would not the chief chemist of the Department of Agriculture be fully justified in amending his words so as to make them read: "Not merely hundreds of cases, but many thousands are on record, of death produced by germs in food which was entirely palatable. Granting that an antiseptic may have some injurious effect, it is perfectly demonstrable that that injurious effect is far less—immeasurably and incontestably less—than that produced by these products of fermentation, and in this instance the public health would be conserved, markedly and profoundly conserved, by the addition of an antiseptic."

To-day attention is centered upon the destructive possibilities of milk. To-morrow scientific attention is sure to be turned in the direction of meat, poultry, fish and the like. If I dwell long on the milk question now it is because it has received a fair degree of scrutiny

and the other has not. Both milk and meats are foods and as such carry the means of multiplying germs.

FOES OF PRESERVATIVES ARE DUMB ON THIS.

But what have the foes of preservatives to say? Nothing. They are all dumb. It has been demonstrated, beyond the possibility of cavil or contention, that preservatives can stop this multiplication of disease germs. Why do they insist upon laws forbidding their use? Have they ever attempted to show that food containing preservatives produced any such wholesale slaughter of human beings?

But this is not the end of the record. Bulletin 41 gives the particulars of numerous epidemics of scarlet fever, diphtheria, pseudo-diphtheria, Malta fever, and summer diarrheas of children, all due to the multiplication of disease germs in milk. These raise the totals of cases up into the tens of thousands.

At the International Tuberculosis Congress, at Washington, there is a visitor from France, M. Calmette, who brings a message of extreme importance. He has demonstrated that consumption, the great white plague of the world, does not come from the breathing into the lungs of germs. He shows, by actual experiment, that it is practically impossible for cases to occur in this way. He also shows that such germs, and even coloring matter, are carried from the intestines, in the direct blood stream, to the lungs, at the very places where consumption develops. It is thus a practically settled fact that this disease must likewise be added to the list of those that are food-borne.

This being the case, there comes up a most staggering array of deaths and suffering due to the multiplication of disease germs in food. In fact, the great mass of those who die in our country do so from food laden with disease germs. Once again let us quote Dr. Wiley's interesting conclusion of "granted that an antiseptic may have some injurious effect, and it is perfectly demonstrable that that injurious effect is far less than that produced by these products of fermentation, and in this instance the public health would be conserved by the addition of an antiseptic."

Stretch your terror of preservatives to its most outlandish limits and can you, or any sane person, believe that they could ever, as used in food, kill as many people as do the combined diseases of consumption, summer complaints, diphtheria, typhoid fever, pseudo-diphtheria, Malta fever, etc.? Do you wonder that the greatest living authority on bacteriology, Professor von Behring, has spent a great part of his life in trying to get his stubborn countrymen to use preservatives in milk?

No great authority on bacteriology has ever raised his voice in opposition to preservatives. It is the lesser lights who have done so. Great toxicologists, like Kober, have favored their use. They have refused to "play to the galleries," although they have known that politics and conservatism would have honored them for doing so. It has been either discreet silence or open support among such men.

LAUGHABLE IGNORANCE OF A FOOD "AUTHORITY."

All the forces that take a delight in "playing to the galleries" are arrayed against preservatives, as they are against every other form of real progress. They seek to please the rabble by an appeal to their fears and prejudices. They refuse to give truth a hearing, as that would spell their sensationalism.

They delight in making the ignorant public believe

that somebody is going to rob or poison them. At the recent meeting of state food officers, at Mackinac Island, according to a report in "What to Eat" (Sept. number, p. 142), one of the gentlemen attending this convention said: "If a preservative be used strong enough to destroy or retard the growth of vegetable bacteria (and it can be of no use to the canner of foods unless it does), then it must have an appreciable effect on the enzymes of the stomach. And if this be true, then it follows that the constant indulgence by any man, no matter how strong he may be, will eventually either destroy or at least injure the efficiency of the digestive tract, the kidneys and liver, and lower the vitality of the poor misguided subject who unwittingly takes his poison by the boarding house route."

That a man who claims to represent science should display so utter a lack of knowledge—and knowledge that is easily obtainable—is almost incomprehensible. Mere school children know better. It is one of the simplest and most elementary facts of physiology that the gastric juice contains hydrochloric acid, and that this acid is a potent antiseptic. It retards the growth of what he is pleased to call "vegetable bacteria." (And, by the way, where did he ever discover that there are animal or mineral bacteria? No one, save himself, knows anything about any other kind of bacteria than "vegetable" ones.)

He should ask the first school boy he meets whether the enzymes of the stomach are injured by the presence of this preservative that is quite strong enough to destroy or retard "the growth of vegetable bacteria." He should not be shocked to learn from the boy that without this preservative he would not be able to properly digest his food. As to its eventually destroying or injuring the digestive tract, kidneys, or liver, or "lowering the vitality of the poor misguided subject," it would scarcely do for him to question the boy on this, or the derisive laugh at his ignorance which it would be sure to elicit might make him feel rather uncomfortable.

As a chemist he ought to know that aqueous solutions of pepsin are preserved from bacterial injury by formaldehyde. If he will consult Dr. C. C. Guthrie, of St. Louis, Mo., he will learn of a section of the vena cava of one dog that was preserved in a 2.5 per cent solution of formaldehyde for 60 days, transplanted into the vena cava of another dog, where it grew and filled up the gap, the dog recovering completely. (Medical Record, Apr. 4, 1908, p. 571.) As no dealer in food ever uses any such large amounts of preservative as this, perhaps some pure food toxiphobist will explain why that soaked vena cava survived.

THEY WANT SENSATIONALISM, NOT FACTS.

But these people care nothing for facts. It is sensationalism they want. Every objection they urge is equally applicable to salt. They forget that they have commended the use of alcohol, vinegar, salt, smoke, and sugar, all of which are antiseptics and should, by their logic, injure the enzymes of the stomach. They never stop to distinguish between stimulative and irritative doses, although the one helps and the other hinders bodily function.

They never consider the fact that all food contains material that is sure to hinder one or other of the digestive processes. An apple, orange or plum will invariably hinder the salivary digestion, because of the acids which they contain. Do they damage the kidneys, liver, or digestive tract as that wise man of

the Mackinac convention declared they ought to? He should go back to school and learn a little about the physiology of digestion.

It is just such men as this to whom Pope referred when he said that "a little learning is a dangerous thing." This Commissioner needs to go just a little deeper into elementary knowledge, and when he does so we will no longer hear him say: "I believe it to be the sacred duty of every man who desires to live his allotted three score and ten, and to contribute his share to the prolongation of the life of his posterity, to study and support the measures looking to the absolute prohibition of artificial preservatives in foods of all kinds."

I wonder if he thinks that the English—much of whose meat is borated—do not reach the three-score-and-ten in as large proportions as in states where preservatives are prohibited. Even the bulk of the butter used in England is likewise borated, while the preserves, jams, and jellies usually contain salicylates or benzoates.

It would be a pleasure to have him go over statistics with me to hear his explanation of all available figures on the question. Instead of finding proof of his position he would discover that it devolved upon him, in every instance, to find some sort of excuse for their adverse character.

At the beginning of the war against the use of preservatives in food, the opposition thought that some support to their contention could be found in the statistics of kidney diseases. Some one had suggested that such evidence might be discovered, and it was not long before a vague appeal was made to this entirely suppositional evidence. When asked for figures and authorities the entire claim collapsed. Since then not a word has been uttered about the evidence for that side of the question from vital statistics. Boards of Health incessantly appeal to statistics to show the declines that occur in various diseases, under the claim that such decline supports their work.

PRESERVATIVES SAVE MANY HUMAN LIVES.

When the advocate of the use of preservatives in food appeals to statistics the cry arises that such evidence is unreliable. Probably some of it is defective, but it is an exceedingly suggestive fact that it all points one way, and that in the way favorable to preservatives. If every bit of the evidence is defective, then a miracle of coincidences has occurred. Mere chance should have divided it between the two sides. The very fact that it is not so divided is itself proof that the figures are in some degree truthful, and that therefore preservatives save many human lives.

Food of all kinds, when exposed to warmth and moisture, constitute the harvest field of death. On food grow the disease germs that cause the great bulk of the disease of temperate climates. The new folly of the medical profession is a belief that clean milk, clean meat, and clean bread—of the kind commonly called clean—will save us from these dangers. No one desires ordinary cleanliness more than your speaker, and I do not in the slightest degree wish to check the effort at getting clean food.

But a love of truth and a desire for public safety compels me to say that ordinary cleanliness can only slightly help us in a battle with disease. Your certified milk can only place you in a fool's paradise if you expect to find in it a saviour from disease. It is AFTER THE MILK HAS LEFT THE FARM that

disease carriers sow the seeds of death in it. Clean milk will be much freer from harmless germs, but it will make a much better culture medium for disease germs than if it was not clean. Clean meat will have less tendency to putrify, and the fat will be less likely to get rancid, but it will present a clearer field for disease germs to grow upon. A plowed, clean field gives weeds a far better chance than one already occupied by grass. When the enemy comes in the night and sows tares, the cleaner the field happens to be the more lively is the growth of the tares.

We cannot get rid of the wind-borne, the water-borne, the dirty-money-borne, the dirty-clothes-borne, the dirty-finger-borne disease germs. Unless all of these can be kept from reaching the meat and milk they are bound to sow the seeds of epidemics. We can sterilize, inspect, and certify till doomsday, and the impression made will be but slight until we are able to check these sowings, or else stop people from eating cold foods of every kind and taking nothing into their stomachs in the form of food that has not been thoroughly sterilized by heat immediately before consumption.

If left-over and potted meats, pies, cakes, ice cream, custards, cream puffs, oysters, jellies, catsups, etc., cannot be kept at the boiling point of water for several minutes just before each meal, then they should be discarded from our larders as deadly—until we are permitted to keep them fresh by the use of antiseptics. No dependence can be placed in the care or cleanliness of servants. Their ignorance of why such care should be exercised would make them wilfully more careless should you insist upon proper care.

CANNED GOODS AND THE DANGER FROM THEM.

Canned goods are among the very safest and most wholesome of foods if consumed immediately after the cans are opened. They are among the most deadly of foods if laid aside after opening, for future use. With some preservative in them they will keep and be safe for sufficient time to assure their consumption.

As we scan the situation from a hygienic standpoint we discover that the very kind of goods that are most likely to spoil in the hands of packers and dealers, and that they therefore try to save by the use of preservatives, are the very kinds that become sources of danger in the household.

Unfortunately our medical men have not been brought face to face with these facts, and cannot realize their importance. Those of them who have been forced to study the situation have come to realize its full importance. Take, for instance, the doctors of the boards of health of New South Wales, Victoria, and New Zealand. The business conditions there are such that they have been compelled to study it. As a result they have declared, publicly, their faith in the harmlessness of preservatives on meats of various kinds, and in butter and cream. I am personally acquainted with a number of physicians connected with State boards of health who believe that their use, under restrictions, would be a public blessing.

Even those who have not avowed themselves as friendly to the use of preservatives do not hesitate in saying that they cannot be considered as dangerous. At the recent meeting of the American Medical Association, in this city, the oration on State Medicine was decidedly of this type. The orator was the Professor of Hygiene in Harvard University's Department of

Medicine. He was also the Secretary of the Massachusetts State Board of Health.

Among other good things he said occurred these notable words: "The national Food and Drugs Act, I repeat, is not primarily a health law, and from the standpoint of health it was not needed. It is rather a law against misbranding and fraud, but those who clamored for it thought they were saving their lives when they succeeded in forcing its passage. I repeat that from the standpoint of health it was not needed, and I will go farther and assert that from the standpoint of commerce it could have been dispensed with, if all the States had done their duty to themselves." (Journal of the American Medical Association, June 13, 1908, p. 1956.)

FOOD CRANKS AFRAID TO DISCUSS THIS.

Coming as this does from one as well qualified to judge of the merits of the law, it is a great concession. The so-called pure food organs have all treated it with notable silence. They evidently deem discretion the better part of valor. To be told, in so many words, that no pure food law was needed, as nothing was being done to the food that was harmful, comes as a rather severe blow from Harvard University, the very core of progress and true reform. To be told that their fear was a chimera of their own fancy, like the seeing of snakes by a drunkard during a wild debauch, could certainly not prove a relishable morsel to them.

For them to thus treat it with silence is a tacit acknowledgment of inability to meet it with honor to themselves. The speaker was evidently determined on having the assembled M. D.'s understand the matter, for he repeated and re-repeated his assertion that from the standpoint of health no such law was needed.

How the editor of the Journal of the American Medical Association must have squirmed when he discovered that, after his years of effort in trying to keep the medical men of the United States in blissful ignorance of the fact that there were actually two sides to the preservative question, he was thus compelled to publish an oration that let into his journal a stray ray of light. For him, and those the polarized light of his journal had misled, to be told that "those who clamored for it thought they were saving their lives when they succeeded in forcing its passage," was a bit of irony that probably rankled in their hearts for a long time.

An accusation of stupidity with only a possible alternative of duplicity is not pleasant to sensitive ears. If the listeners, who had taken part in the "forcing" of the law, did not believe that its passage would save their lives, then were they contending for a false and misleading piece of eminent folly.

WORKINGS OF THE FEDERAL FOOD LAW.

As regards the working of the law in his State this same speaker had this to say concerning it: "A manufacturer of jams and preserves, through a shortage of small fruits, is forced to draw on Canada for a supply to fill domestic orders, and in order to insure good condition on arrival directs that a certain small amount of preservative substance, the use of which is expressly permitted by the laws of his State, shall be applied before shipment. On arrival at the custom house, the goods are denied entrance, because of the presence of the preservative, and neither the offer to file a bond that the manufactured article would not be shipped out of the State, nor a statement from the one charged with

the enforcement of the State food laws that the use of the preservative is recognized as legitimate by the State law on the subject, can cause a reversal of the ruling. Such was the experience of a Massachusetts house in good business standing" (p. 1955).

As the federal government, in this instance, showed such zeal in doing that which robbed the State of its own police power, which the Constitution is supposed to guarantee, it was deemed advisable to test its honesty of purpose in the handling of this law. Massachusetts is pestered with milk peddlers from other bordering States. They carry across the borders typhoid germs, filth germs, scarlet fever germs, and other obnoxious kinds of germs that the health officers desire to keep out. As the pure food law is an interstate law, and as here was a case in which it could do real good to the community, an appeal was made to the authorities at Washington to try and put a stop to so dangerous a practice. The authorities at Washington declared that they were powerless in the affair. After considerable correspondence the matter was dropped.

The moral to be drawn from all this is that you can always be certain that this so-called Pure Food Law will work to perfection where it can damage and curse a community, but is utterly valueless and powerless when called upon to act in a place where it might do a great deal of good. As a means of protecting the health of the citizens of the Commonwealth of Massachusetts it has proven a pitiable farce. As a means of violating the constitutional rights of the same people and of interfering with legitimate commerce, it is an unquestionable success.

FOOD LAW REPUDIATED BY ITS FRIENDS.

But, poor old law! why should we stop to condemn it when its own sponsors have repudiated it? Finding that they were not to be allowed to interpret it in accordance with their whims, that there is a strong sentiment among the best people of our country to see that truth and not vague sentiment shall control, the State Food Officers have come out in open rebellion against it.

So long as they thought themselves secure in injecting into the law their peculiar notions it was deemed superb. There was great rejoicing among them at its passage. Now that they fear that truth may prevail they demand what they are pleased to call a stronger law.

You, no doubt, know what that word stronger means when it comes from them. At the Mackinac meeting the new president said: "In the enactment and enforcement of strong and effective food laws, the states will have to continue in the future as they have in the past to take the lead." This was evidently the sentiment of the retiring president as well, for he said: "Gentlemen of the Association, after one year's experience we must concede that there can be no official co-operation between state and national authorities in the preparation of standards as a common basis for action. There are too great differences between the better elements of our state laws and national law to make it desirable to bring our state laws into harmony with the national law under existing conditions."

The same gentlemen told the convention that "the secretary of agriculture, it would seem, does not want co-operation of state and national authorities in the establishment of standards." He thus charges Secretary Wilson with being the cause of their dissatisfaction. His Scotch love of justice and keen logical acu-

men must have discerned their selfish motives, or they have placed the blame on the wrong man. Perhaps they are seeking to make a scapegoat of him, not daring to accuse President Roosevelt in the vile way they hit at the Secretary.

ATTACK ON THE SECRETARY OF AGRICULTURE.

Let me quote farther from the same speech: "It has been recognized that the common ground on which state and national laws can best meet for their harmonious enforcement is through the establishment of proper standards which would serve as a guide for both state and national authorities. The establishment of standards is what the food adulterators and special interests fight against, for with established standards once in force the food adulterator's days are numbered. The Secretary of Agriculture, apparently observing that such standards, when the work had been partially completed, were not pleasing to the special interests, seems to have succumbed to the pressure brought to bear, and, unfortunately, even aided in nullifying the work."

Passing this insulting insinuation against the Secretary of Agriculture as unworthy of attention, what can we say to the statement that the "special interests" (meaning, I presume, all packers and provision dealers whom he dared not include with his "food adulterators") are opposed to all standards?

Is this true? Now I personally happen to know a few of these dealers, and know that the one thing above all else which they desire is an honest food standard. They know that such a standard would settle this whole matter for all time in a way that judges, juries, lawyers and honest, intelligent men of all classes would be satisfied with. I, therefore, hurl back at the retiring president of that convention the charge that "special interests" are opposed to standards.

What they are opposed to is laws that know no standard except the whims of Dairy and Food Commissioners. Your speaker presented a system for standardizing every kind of substance that might be put into food, and the committee on standards paid no more attention to it than if it was the wail of the west wind. I proposed that nothing should be permitted to be put into food of greater relative dose, in proportion to its known strength, than a given proportion of vinegar.

Making the dose of vinegar the standard, I proposed that everything put into food should correspond in strength with the maximum amount of vinegar the committee might allow. Vinegar, as you must know, is a solution of acetic acid in water, with some aromatic substances. The acetic acid is the special sour constituent. If, for instance, ten grains of absolute acetic acid were allowed to be put into ten pounds of any kind of food, then the equivalent in strength of that ten grains should be allowed to be used of any substance whatever.

A STANDARD THEY DARE NOT ADOPT.

If one grain of acetic acid was the average dose given in any or all books on materia medica, and twenty grains of salt was the dose of the same books, then no more salt should be allowed to be used than twenty grains in ten pounds of food. In this way one standard could be used for everything and that the standard of safety. The safe dose of anything being permitted to be used, no one should be allowed to exceed that dose.

Let a committee on standards find out exactly how much vinegar or salt they are willing to be allowed for

use in ten pounds of food, and the ratio that bears to the medical doses of all other substances should become the legal standard.

In case the preservative is only used to pack with the food, as salt or boric acid are packed around hams under shipment, the amount of the preservative which the food is found to absorb should settle its availability for such a purpose. The same standard should then apply.

If the Dairy Commissioners were honest in their cry for a standard they ought to be willing to adopt such a one as this. Let them say how much salt or vinegar they will allow per pound of food, and I assure you that its dose-ratio of any preservative now used will pass the rigors of such a law with flying colors. Every one of them is much less harmful in the doses you have to use of them than is either salt or vinegar.

The users of these so-called condiments use amounts much nearer the line of danger to human health than do the users of modern preservatives. Neither salt nor vinegar would be of much value as preservatives if they were kept as well within the lines of safety from poisoning or injury as you keep your preservatives.

Had the poison squad been placed upon either vinegar or salt, in quantities near to the proportional preservative power of the boric acid, benzoic acid, or salicylic acid, none of them would have remained to finish the tests. They would either have had to give up within a day or two, or they would have died before the finish.

If the vinegar had been given in the form of absolute acetic acid, as the benzoic and salicylic acids were given, the first dose might have seriously injured the taker. It would have burned into the tissue of the stomach wall, unless enough food was present to absorb it before coming into contact therewith.

SHOULD INSIST ON A STANDARD.

If the packers and food dealers of the country would only unite and insist upon a standard for everything put into food, and demand as their right that salt and vinegar be compelled to comply with the same standard they need not fear letting any set of scientific men work it out for them.

Let Dr. Wiley put his poison squad on doses of salt and of vinegar having exactly the same protective power on five pounds of food as his capsule doses of modern preservatives had. When he finds, as he quickly will, that such doses are too much for the men, then let him gradually lower the doses of salt and vinegar until he has discovered the amount that will do the men no more harm than the capsule preservatives did. This will give him the relative values of these as compared with the boric, salicylic, and benzoic acids.

Whatever the amount of salt or vinegar he is willing to go into a pound of food, after such an experiment, he should be willing to permit of a corresponding ratio of the other preserving substances. If he is willing to let a dram of salt go into a pound of food, and the injurious power of a dram of salt is just equal to the injurious power of ten grains of salicylic acid, he ought to permit of the use of that much salicylic acid in a pound of food. If he is willing to permit of any higher amount of salt, then he should permit of an equally high proportion of the other preservatives. Make the relative effects the test of the permissible amounts.

Whoever may be the arbiters of your fate in the matter of using preservatives, they should be given to un-

derstand that nothing short of such a standard can be tolerated. You do not care to know whether your preservatives are harmful or not. Everything you eat and drink is harmful in some dose. What you want, and what you should insist upon, is fair and honest dealing by the representatives of the government.

If preservatives are to be prohibited because they injure in such doses as Prof. Wiley tried, then insist upon salt, vinegar, smoke, glycerin, alcohol and sugar being prohibited in equal antiseptic power, since their injury is greater. Compel them to give you a fair standard that applies with equal rigor to salt as it does to benzoate of soda.

THEY ARE BLIND LEADERS OF THE BLIND.

One hundred cents is equal in value to a dollar, and 100 units of preservative power is the same in sugar as in borax. If 100 units of preservation in sugar is more harmful to your digestion than one hundred units of preservation in borax, is it not utter folly to commend the sugar and condemn the borax? Yet this is exactly what is being done in the name of science, with but few to protest against the ravishment of common sense. Compel the powers that be to acknowledge that a hundred units of preservative power in anything should be permitted to be used, providing it is as harmless as or less harmful than 100 preservative units of salt or vinegar.

There should be no trouble in fixing such a standard, and would not be if there was the slightest intention on the part of your enemies to be fair. They want no standards. What they want is absolute prohibition of everything except that which their daddies used. They are rigidly set against progress.

The faddists have a dim perception of their utter helplessness before the problem of suppressing disease germs or conserving the public health. They can parade their knowledge to a gaping crowd with the results of test-tube tests of preservatives. They can do nothing with the real poisons in food and they know it.

Take away opposition to preservatives from them and the public will at once see how hollow their pretended knowledge really is. They will immediately appear in their true guise of blind leaders of the blind.

Following Dr. Eccles' address a paper by Mr. Louis A. Kramer of the Brecht Butcher Supply Co. of St. Louis was read entitled "Practical Points in Lard Manufacture," which was then followed by an address on "Tank Water and Glue," by Robert S. Redfield of New York. The concluding address of the convention was prepared by Dr. Albert H. Schmidt, Chemist of Schwarzschild & Sulzberger Co. of Chicago, on "Packinghouse Chemistry" and which we present herewith in full.

PACKINGHOUSE CHEMISTRY.

BY DR. ALBERT H. SCHMIDT, CHEMIST, SCHWARZCHILD & SULZBERGER CO., CHICAGO.

Members of the American Meat Packers' Association:

The packing industry as we understand it to-day dates from the year 1818, when an establishment was started in Cincinnati. From there the industry gradually spread westward and other centers grew up, notably Chicago. Later on such centers as Kansas City, St. Louis and Omaha sprung up and have become dominant factors in the meat packing industry. It is mainly in the four centers mentioned that the

former primitive methods have been completely revolutionized and the present high state of development of packing industry and its many ramifications has been attained.

In the earlier days packing could only be carried on in the winter months, as ice and natural temperature were the only means at hand to preserve the products. But with the perfection and introduction of artificial refrigeration conditions were entirely changed, so that to-day the industry is carried on the year around.

The world in general and the packing industry in particular are indebted to the chemists and physicists who developed the ice machine and artificial refrigeration, for without these agents the packing industry could never have attained its present development, and the world at large could never have reaped the benefit of having fresh meats and other easily decomposed food products shipped thousands of miles in a perfectly fresh and wholesome state.

REFRIGERATION THE CHIEF FACTOR OF DEVELOPMENT.

Applied chemistry, in addition to refrigeration, has been a most potent factor in developing the scientific packing industry of to-day. It is the chemist who has devised ways and means of utilizing animal offal and waste, and changing into a source of income what was formerly a source of expense and trouble and a public nuisance.



DR. ALFRED H. SCHMIDT.

Besides developing the manufacture of tankage and blood as made to-day, it is through the knowledge and research of the packinghouse chemist that the manufacture of such articles as blood albumen, beef extract, pepsin pancreatin and rennet has been put on a commercial basis.

In the chemical laboratory of an up-to-date modern packinghouse the chemical work covers a wide and varied field. All of the oils and fats manufactured are analyzed, usually once a week. The titer—or, as

sometimes incorrectly stated, the hardness of the fats—is determined, as well as the percentage of free fatty acids present.

The percentage of free fatty acids is usually a good index as to the care with which a fat or an oil has been rendered. For if the percentage of free fatty acids is above the maximum limit of the normal, there is good ground to believe that in some part of the process of rendering or handling the proper care was not exercised, and steps can immediately be taken to ascertain the cause.

Chief among the causes of high free fatty acids in oils is improper chilling, and holding the fats too long in places without refrigeration, and not properly washing the fat. Decomposition sets in and then we have what is called "sour fats." Another cause is overcooking in the tanks. Cooking longer under pressure than is necessary is liable to split some of the fat up into free fatty acids and glycerin, and incidentally lowers the yield of tankage.

Another cause is improper drawing off of the fat from the tanks, and thereby getting an abnormal amount of water and suspended albuminous matter, which under the influence of the heat in the settling vats or coolers is liable to hydrolize or split up some of the oils. The fine floating albuminous matter sometimes found in carelessly drawn off oils is very easily decomposed, and then gives rise to obnoxious odors.

TO GET BEST RESULTS IN RENDERING.

To get the best results in rendering a fat it is imperative that the fat be fresh and clean. In this connection I wish to say a few words about neutral lard. Neutral lard is known to be extremely susceptible to odors, and every renderer should try to have the leaf properly chilled and kept in a chill room removed from any part of the building that may affect the leaf lard by any bad odor.

But there is one mistake made in some houses that no subsequent care in chilling and rendering will remedy, and this is the practice of throwing the hot leaf, as it is cut out of the hog, into a truck and leaving it to stand until the truck is filled. The hot leaf lard packed in the truck in that manner retains practically all the animal heat, and when it is hung in the chill room after that it is chilled too quickly, and the consequence is that the lard after rendering has lost some of its fine flavor. The proper way is to hang each piece of leaf on hooks on wheeled racks, thereby gradually allowing the leaf to lose the greater part of the animal heat before going into the chill room.

After rendering especial attention should be paid to the straining and settling, as some of the fine floating albuminous matter will sometimes easily pass through the cheesecloth, and this in the presence of a little moisture is liable to gradual decomposition, giving the lard an "off" flavor in a short while.

Aside from the chemical analysis, it is well for the chemist to take note of the odor and taste of all edible fats, as these are salient points, and under the competitive system department chiefs will sometimes sacrifice quality to increase the yield.

ANALYSIS OF BLOOD AND TANKAGE.

Under the heading of analysis of blood and tankage I may say that different arrangements obtain in different establishments. The usual course is to take samples every week of the week's production for analysis. Weekly samples of blood are analyzed for the percentage of moisture and ammonia. For the proper

storage and keeping qualities of blood, it is necessary to dry it down to at least 12 per cent of moisture, the lower the better. This can only be determined by chemical analysis.

From the yield reports and chemical analyses it can easily be calculated as to whether the proper yield is being obtained. Of dried blood approximately 10 per cent of moisture cattle should yield 8 pounds, hogs one pound, sheep one pound, and calves two pounds. When the yield falls much below these figures it is due to improper cooking or careless handling of the blood on the killing floor, with its consequent waste. Improper cooking is sometimes not due to negligence on the part of the workmen, but due to the blood tank not being properly arranged.

The weekly samples of tankage are analyzed for the percentage of moisture, ammonia, bone phosphate and, what is most important, grease. The aim of the packer should be to keep his grease percentage in tankage at 10 per cent, on a 10 per cent moisture basis, if possible. If not possible, he should spare no trouble or expense to make it possible. Not only that, but when in excess it is a detriment to the fertilizing value of the product, and lowers the value of the ammonia unit.

GREASE IN TANKAGE IS DEAD LOSS.

Last, but by no means least, every per cent of grease in excess represents a dead loss to the packer. For instance, I will give a concrete example. Suppose a packer produces 50 tons of tankage a week, containing 15 per cent of grease. This is 5 per cent in excess of what he should have with proper workmanship and installation. Five per cent excess grease in 50 tons of tankage amounts to 5,000 pounds of grease, which valued at 4c. a pound amounts to \$200 a week. Two hundred dollars a week is quite an item for any packer.

The percentage of grease in tankage can only be controlled by chemical analysis. Some houses make it a practice to have samples taken daily from every press, and analyses made on the same to keep control of the grease percentage.

Among the various causes for excess percentage of grease in tankage is overcooking and faulty pressing. If the presses are not built right, or the pressure not applied evenly and steadily or not enough pressure applied, the grease percentage goes up. It is surprising the amount of grease some tankages can retain.

It goes without saying that every tankage press should be fitted with a pressure gauge. Nevertheless, there are many houses which, through a false sense of economy, believe they can save the small sum necessary for pressure gauges, and get just as good results. But they cannot. The pressure gauge is the only means at hand for the pressman to know if he is getting the right pressure, whether the pumps are doing their duty, or the packings have become leaky.

I know of a certain department head who tried to justify the absence of gauges on his tankage presses by saying that the gauges did not do the pressing. Quite true, but they were not intended to do any pressing, only to register the pressure. The cooler and freezing departments could just as well throw all their thermometers on the scrap heap, on the ground that they did not reduce the temperatures anyway.

From the foregoing remarks it is readily seen how important the chemical control of the manufacture of tankage is, and the cost of chemical control is insignificant compared with the benefits derived therefrom.

Every per cent of grease in the tankage means 20 pounds. With the price of grease at about 4c. a pound that means \$80 per ton. A little carelessness here, a little neglect there, and a general indifference all around will raise the sum lost through excess grease in tankage to an enormous amount, that would well stagger many a packer if he were to figure it out.

And all of this is entirely uncalled for and avoidable, and he could just as well have the money in his pocket, instead of having it spread as a fertilizer on the fields.

IMPORTANCE OF ANALYZING SUPPLIES.

Another important part of the work of the packinghouse chemist is the analysis of supplies. It is surprising the many and varied supplies that go into the packinghouse. This includes spices, salt, sugars, saltpetre, caustic soda, sal soda and soda ash; coal, paints and paint oils, solders and car journals, and dozens of other items, where it is necessary to find out by chemical analysis as to whether the supplies conform to specifications.

It is not possible within the narrow confines of a paper such as this to discuss the analysis of the various packinghouse supplies. But I must make a few remarks in passing. The recent Foods and Drugs Act has wrought a great improvement in the quality of spices in general, and many adulterants and substitutes that formerly were almost universally used have almost entirely disappeared from the market.

Nevertheless, it is well to buy spices subject to chemical analysis, for a spice may be pure and unadulterated, but it may be so old and have been stored under such adverse conditions as to lose the greater part of its essential oils and extractives—just the constituents that give the spices their value. The one spice that will bear constant watching is mace. Its high price still makes it an object for many unscrupulous dealers to add small amounts of adulterants.

Another item of great importance is salt. The salt used for pickling and casings should be free of calcium compounds and sulphates, as these compounds when present in sufficient quantities and under certain conditions may form calcium sulphate, and this would prove a troublesome compound, especially in pickle. Sugars and saltpetre, the soda compounds, solders, etc., are usually of a fair degree of purity.

KEEP AN EYE ON THE PAINTS.

The one item that will bear watching, and for which there are no laws as yet to protect the buyer or consumer, is paints. It will certainly pay any firm that needs paint in any quantity to have the paints analyzed, and let the dealer know that if the paints are not as represented he will have to pay the freight back. When once it is known that a house subjects all its paints and paint oils to chemical analysis, and will only accept such as are up to grade, it experiences little trouble after that.

All packinghouses, even those of modest proportions, require large quantities of coal. Aside from the question of price, there are reasons why the coal should be systematically analyzed, unless the coal supply is of a known quality, with good steaming qualities and forming no troublesome clinkers. Also in many places the water supply gives rise to a lot of trouble. Chemical analyses will give the necessary data for proper water treatment, both for general and for boiler use.

(Continued on page 23.)

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CASES REPORTED BY THE DEPARTMENT OF AGRICULTURE FOR PROSECUTION UN- DER THE FOOD AND DRUGS ACT OF JUNE 30, 1906.

Since October 10, 1907, one hundred and eighty-five cases involving violations of sections 1, 2 and 10 of the Food and Drugs Act of June 30, 1906, have been reported by the Department of Agriculture to the Attorney General and United States Attorneys, for prosecution. Of these 120 were offenses under sections 1 and 2, and 65 under section 10.

Of the 120 criminal cases, 17 have resulted in conviction, 10 have been dropped because of death of offenders before trial, and for lack of evidence to establish jurisdiction; and 93 are still pending, the larger portion of which will probably be disposed of at the fall terms of court.

Of the 65 seizure cases, 16 have resulted in forfeiture and condemnation of the goods; 2 have been dropped because of insufficient evidence, and in 47 seizure has been effected, and in most of the cases will be closed before the expiration of the calendar year.

These cases have covered an area of upwards of 25 states and the District of Columbia, and the subjects of the offenses, that is, the character of the foods and drugs involved, both in criminal and seizure cases, have been varied. A larger proportion of criminal cases have been based upon frauds in flavoring extracts than on any other one article. Several shameless frauds in patent medicines, among them "Sartoin Skin Food," "Hancock's Liquid Sulphur," and "Concentrated Oil of Pine," have been punished and the articles withdrawn from the market. Numerous consignments of whiskey have been seized and 88 cases of whiskey have already been forfeited and condemned. The other cases are still pending and probably will be disposed of in a short time. 1,293 barrels of wine, 50 cases of beer, and 270 barrels of cider were confiscated and condemned. A carload of adulterated and misbranded animal food was forfeited and condemned.

No case has yet been lost by the Government.

In addition to the foregoing cases reported for prosecution, a much larger number have been considered by the Department, and hearings held, the effect of which has been, in many instances, as effective as prosecutions.

NORTHWESTERN FOOD COMMISSIONERS MAKE UNIFORM RULES.

The Northwestern Commissioners in Session at Madison, Wisconsin, Sept. 29 and 30, to consider uniform rulings made slow progress as compared with the previous meeting in St. Paul. But little in the way of uniform rulings as to form of labeling was attempted. However, the assembly agreed on an acceptable form of labeling for compound sausage and ice cream containing gelatin and eggs. A standard for sausage and ice cream was adopted and the addition of ice or water to oysters, and caffeine to soft drinks condemned.

So called "Liquid Smoke" soap bark and cocaine received each a black eye but nothing was said of arsenic, nicotine or cyanide of potassium.

The most important resolution was one not germane to the call of the convention. It called for no unity of action under existing laws but advocated in new food legislation laws for the *sanitary control* of food factories. The sessions were all secret, said to be accuated by the dislike of the commissioners to allow the public to know that there was dissension or differences of opinion in their ranks. As this meeting was in reality a committee meeting with the ostensible purpose of finding common ground on which the commissioners might act under the laws of their respective states, no strong criticism can be made of the desire for secrecy, still less, however, could a commissioner be criticised for taking the public from whom he derives his authority and his pay check, into his confidence. Only in that way may wrongs be made right and be kept right.

THE TUBERCULOSIS CONGRESS.

The Tuberculosis Congress in Washington has finished its labors; many papers were read and resolutions passed, and the general result, while not uncovering any specific for the wasting disease, has helped to call the attention of the world to its insidious advances, to its communicable nature and to methods of combating the disease by prevention and by cure. The question of animal tuberculosis received much attention also, and the congress was divided as to the identity of the disease in animals and in man, and of the possibility of its being communicated to man from the lower animals. Practically all the scientific observation has been done by Prof. Koch, the celebrated discoverer of the germ of the disease, who claims he has proven the disease is not transmissible. Nevertheless the congress passed resolutions expressing the possibility of such transmissibility, to which resolutions Prof. Koch made no open objection. The purity wholesomeness and nutritious qualities of the food are all important in combating the great white plague, but in view of the prevalence of the disease among animals and the possibility of transmission to man, no food problem is more important than that effecting the preparation of animal products for food.

The open door was the only kind of a door known at The American Meat Packers' Convention, Chicago, October 12, 13 and 14.

REFORMATION BY LAW.

In a recent address before the Congress of the Playground Association Governor Charles E. Hughes said: "I think the average man would rather do right than wrong. If he has a chance to live a decent life he will live it, but it is impossible to make man good by force or law. That is an old, mistaken, unsuccessful effort of despotism, a few with advantages keeping the many good, obedient and docile by force. You can't succeed on that line in this country. Here men must be their own policemen. The conscience of each must be the safeguard of all, and if any of you here cherish a dream that any administration can succeed by ignoring human nature let him keep on dreaming, for it is only a dream." The thought is not new, but is as intensely applicable to the present moment as it has been from remotest times to the reformation and from the reformation to events of yesterday. Even the best monarchs of the middle ages forced obedience to their doctrines by might, and Europe was continually drenched in blood—now on the field of carnage, now on the conquered, sparing not age nor sex nor the innocent babe, often for no more important issue than the interpretation of the sacrament of the Lord's supper or the adoption of the Gregorian calendar. The people finally grasped the scepter from the bloody hands of the sovereign. Civil law succeeded arbitrary commands. The rights of the individual were recognized. The nations have made wonderful progress in liberty of thought and action since the reformation. Yet there are those who would force upon the unregenerated their superior doctrines by penalizing all who cannot subscribe to them. There are those who think that public safety and civic virtue lie only in a multiplicity of laws and crowded penitentiaries. If the state be too weak or wise to enforce opinions recourse is had to the all powerful central government.

If the tendencies of the present day were carried to their logical conclusion we would soon be in the condition depicted so clearly and entertainingly by Parry in "The Scarlet Empire," where every man is known by number and lives by rule. Laws for the protection of society against the vicious few are a necessity. Laws for the protection of the numerous weak against the grasping and unscrupulous strong are equally essential lest oft inflicted wrongs lead to anarchy. But after all we must in the end rely on the conscience of the individual. Our society will be on a plane with the average individuals which compose it. The encouraging, optimistic condition is the desire of people to do right, and the time is surely coming when the present tendency to multiply laws and enlarge prisons will cease and people of their own accord will apply the Golden Rule in their dealings one with another.

WISCONSIN BAKERS CONVENTION.

The Wisconsin Bakers hold a convention in Milwaukee Oct. 26, 27, and 28. Representatives of the Chicago Health Department and the Faculty of the University of Wisconsin will address the convention on topic related to the hygienic control of bread making operations. Others who will address the bakers are Dr. A. L. Winton, United States food and drug inspection laboratory, Chicago; A. S. Mitchell, United States food and drug inspection laboratory, St. Paul; Dr. N. A. Cobb, Department of Agriculture, Washington, D. C.

NEW FOOD RULING IN PENNSYLVANIA.

Food Commissioner Foust of Pennsylvania has reversed a former ruling in regard to the labeling of retail packages under the food law. His ruling is now that the retail package must be labeled corresponding to the original package in case of goods bought in bulk. In a letter to the Grocery World under date of Sept. 22, 1908, Commissioner Foust says:

On July 1, 1908, replying to a letter received from Mr. William Smedley, secretary of the Retail Merchants' Association, Philadelphia, I stated to him in substance, when rice is sold, as it usually is, in bags, and goes out to the retailer from the jobber properly marked on the package or box containing it, it is put out to the retail trade in the same way as molasses when sold in barrels. I stated to him that when a barrel is properly branded that I did not deem it necessary for the vessel containing the pint or quart of molasses sold by the retailer to be labeled, provided, however, that it contained nothing which was injurious to health.

Upon further examination of Section 5, Clause 5, of the Act of June 1, 1907, I am thoroughly convinced that I erred in my letter to Mr. Smedley. The law is plain and needs no ruling on the subject. It provides:—

That when, in the preparation of food products for shipment, they are preserved by any external application, applied in such manner that the preservative is necessarily removed mechanically, or by maceration in water, or otherwise, and directions for the removal of said preservative shall be printed on the covering of the package, the provisions of this act shall be construed as applying only when said products are ready for consumption.

I have issued no ruling with reference to this matter, neither do I know of any ruling having been issued by the authorities at Washington covering this question. If the Federal authorities would issue a rule I could then, under Section 3, follow their ruling. Probably they look at the matter as I do, the law being so plain, a ruling is unnecessary.

I have forwarded a copy of this letter to Mr. Smedley, so that he may be fully informed regarding my error in my letter to him of July 1, 1908, as the intention of the Legislature in Section 5, Clause 5, as quoted, is that each package containing the rice shall be labeled, indicating that the rice is coated with talc and glucose and should be removed by maceration in water, or otherwise. The directions for the removal of the preservative shall be printed on the covering of the package." This is the law and it could not be set aside by a ruling.

I fully agree with your interpretation of the law with reference to compound syrup, that it must be marked in order that each customer may have notice of the character of the product."

Objection has been made to this ruling not on the ground that it may not fairly be upheld under other sections of the law but that the section quoted is not applicable except in the case of preservatives and the materials used in coating rice are not preservatives nor used for that purpose.

Another conviction obtained in Kansas under Regulation 33 in regard to the covering of perishable goods displayed on the sidewalk. Fine \$1.00. Not big, but a little lesson which ought to be worth the money.

DR. HERTER EXPERIMENTS WITH BENZOIC ACID.

Report under date of Oct. 12 states that experiments have been under way for 4 months and now practically completed in the laboratory of Dr. Christian A. Herter of the Bellevue Hospital Medical College, one of the referees on the Food and Drug Law, on the effect of benzoic acid in foods, on health and digestion. Three physicians and a chemist were experimented upon. The physicians are Dr. D. R. Lucas connected with the College of Physicians and Surgeons, Dr. A. J. Ringer, of the Bellevue Medical School and Dr. S. A. Harvey of Yale. The chemist is Edward Obrien. Each has taken 60 grains of benzoic acid and are said to show practically no ill effects from their benzoic spree.

The details of the experiment have not been made public but are expected in a few days, and being made by parties who evidently desire to arrive at the truth rather than to demonstrate preconceived and expressed conclusions, will have much weight with the scientific world.

NEW NATIONAL PURE SODA WATER LEAGUE.

A National Pure Soda Water League has been formed for the benefit of those engaged in the soda water trade. Purity of product will be given every consideration in the organization. According to Mr. A. H. Van Gorder, delegate from the National Soda Water League to the National Wholesale Druggists' Association, the objects of the association are:

"To improve all conditions directly or indirectly affecting the soda water industry.

"To promote the interests of its members and all those interested in the sale or dispensing of soda water and kindred products.

"To encourage in every legitimate way the popularity and consumption of such products; and to protect the consumers of soda fountain beverages with pure goods, dispensed under sanitary conditions."

Those eligible to active membership are all reputable persons, firms or corporations engaged in the manufacture of, or as wholesale dealers in, soda fountain apparatus, accessories, or supplies.

Those eligible to associate membership are all reputable persons, firms or corporations who as proprietors are engaged in the business of selling soda fountain products at retail.

INSPECTION OF FOOD AND DRUGS IN MASSACHUSETTS DURING THE MONTH OF AUGUST 1908.

Pure:

Butter, 4; canned goods, 3; cocoa, 2; coffee, 1; cream, 7; drugs, 36; extract of vanilla, 2; grape juice, 1; lard, 2; maple syrup, 1; milk, 163; canned meats and meat products, 8; non-alcoholic drinks, 3; proprietary foods, 2; ryé flour, 2; salad dressing, 1; spices, 6; table sauce, 1; pickles, 2.

Adulterated or Below Standard:

Milk, 137; cream, 3; drugs, 16; proprietary foods, 4; pickles, 1.

This is a very good showing for the pioneer state in the pure food movement, as except for milk and cream and drugs but few adulterated samples were uncovered in August, and the poor showing of the cow is due in part to a high standard of solids in a poor month for high quality milk.

A FEW BELATED COMMENTS ON THE MACKINAC CONVENTION.

"From Monthly Bulletin of the Dairy and Food Division of the Pennsylvania Department of Agriculture."

The convention missed Commissioner Jones, of Illinois, and greatly regretted his enforced absence. He was detained by important business.

* * *

We all think the Denver session will nominate and elect the officers of the association without the intervention of a committee.

* * *

Assistant Commissioner Cannon, of Colorado, in seconding the nomination of Denver as the next place of meeting, made a splendid impression and convinced the members of the association that Denver is worth visiting. Nevertheless the ground had been well prepared by his chief, Commissioner Bishop.

* * *

Among the other papers that paid special attention to the convention and gave admirable reports of the proceedings we feel inclined to name the New York Journal of Commerce. It gave detailed reports and accompanied them from time to time with intelligent and sympathetic editorial comment. Many other newspapers are devoting increased attention to food topics, an encouraging sign.

FOOD LAW SUSPENDED IN LOUISIANA.

Until a new code of laws is prepared by the State Board of Health of Louisiana, the pure food and drug law will be suspended from operation and the people of the state must depend for protection on the national law. Dr. Dillon is the successor to Dr. Irion. It is the opinion of the present officials in which opinion they seem to be supported by the people of Louisiana if we may judge by the comment of the newspapers of the state, that the rules and regulations of the former board were too harsh and drastic. There was especial objection to the prohibition on the refilling of prescriptions by the druggist. If any prohibition of this nature is made by the present board it will be on habit forming drugs only.

GRADUATE SCHOOL OF AGRICULTURE.

There was held at Geneva and Ithaca, New York, in July last, the third session of the Graduate School of Agriculture. The first session was held in 1902 and the second in 1906. The Graduate School of Home Economics held a session at the same time. One hundred and sixty-four students were in attendance at both schools. Many prominent teachers were present and gave lectures and addresses. Some of the instructors were President Snyder of the Michigan Agricultural College, Dr. Jordan of the New York Experiment Station and Prof. Armsby of Pennsylvania State College. The institution seems to offer to professors and instructors in agricultural colleges an opportunity to complete their education or as much thereof as can be accomplished in three weeks.

MODEL NATIONAL FOOD LAW.

Several of the Fargo, North Dakota, papers announced a few weeks ago that Prof. Ladd was off to Madison with his Model National Food Law. Not a peep about it was allowed to filter through the exclusiveness of the Madison meeting however. Nevertheless, God speed it. Two years ago such a move on the part of a food official was rank heresy. Today it will meet with approval on every hand.

FOOD NOTES

The Grau Provision Company was recently fined in the San Francisco police court for selling Worcestershire sauce containing benzoic acid.

* * *

Commissioner Wright of Iowa is still after the succulent part of the popular bivalve. Desiccated oysters is the order of the day in Iowa and Kansas.

* * *

Forty-eight suits have been started by the Chicago Health Department against persons alleged to have stored milk, meat and other articles of food on insanitary premises.

* * *

The Annual Food Fair and House Furnishing Exposition held under the auspices of the Massachusetts Retail Grocers and Provision Dealers' Association is now in full swing in Boston.

* * *

It seems the national food law has helped foreign countries according to the American consul at Bordeaux, France. Americans are paying more respect and incidentally cash for the foreign label.

* * *

According to Consul Verby of Sierra Leone, palm oil is an industry of great promise in West Africa and the great need is American machinery to do the work of manufacturing the oil now laboriously done by hand.

* * *

The sixth annual Pure Food Exposition opened in Tomlinson's Hall, Indianapolis, Ind., Oct. 8, and will continue until Saturday, Oct. 24, every day except Sunday. The pure food department of the State Board of Health will have an exhibit.

* * *

John Kjellander, city sealer of Chicago, has struck a snag in the enforcement of the short weight law. The truck farmers getting wise to the weakness of the law refused to claim weight or size of package but only that it contained a certain amount of money value.

* * *

Illinois is not the only state furnishing bad food in the public institutions. In New Jersey 40 nurses in an institution in Newark signed a "round robin" complaining that the bread was mouldy, the potatoes sour and that the beef left a bad taste in the mouth. What must the patients have been compelled to eat?

* * *

Dr. C. C. Miller and Dr. G. Bohrer are conducting an interesting discussion in the American Bee Journal in regard to whether bees by their stings poison the honey in the comb. Dr. Bohrer believes the bee poison to be in the top of the comb which is removed with the uncapping knife when the comb is prepared for the centrifugal in the preparation of extracted honey.

* * *

J. Lester Laird in a letter to the Minneapolis Tribune complains that the pure food laws of Minnesota are not well enforced and that officials with backbones alive to their duty are needed. He cites instances where meats are filthily handled and where ice cream cans are exposed with rotten contents on the sidewalk. If we mistake not the Minnesota food commissioner would be stretching the power conferred upon him in fighting these nuisances and that special legislation is

required. However, Minneapolis is large enough to have health ordinances for the eradication of unsanitary conditions in the food distributing trades, and such work is really incumbent on the city.

* * *

Typhoid is prevalent in Sacred Heart College, Denver, Colorado, and Food Inspector Cannon strongly suspects a dairy which supplies milk to the institution. The water for the dairy is supplied from a spring which the inspectors say is rather a seepage pool into which sewage from the neighborhood drains. As soon as he learned of the liability of his milk causing or spreading disease the proprietor of the dairy discontinued the sale of milk.

* * *

Dr. J. S. Abbott, State Food and Drug Commissioner of Texas has submitted his first annual report to the Governor. Dr. Abbott finds that the appropriation of \$5,000 for the support of the office is entirely inadequate and recommends an annual appropriation of \$15,000. This recommendation is certainly justifiable—indeed he should ask for and receive more as Texas is too large a state to be paroled and the food markets purified on a sum that would seem insignificant in Rhode Island.

MISBRANDING OF COFFEE.

Decision of Courts Condemning Caffeine Free Importations

The announcement is made by the Board of Food and Drug Inspection at Washington that under the Pure Food Act the district court of the United States for the district of Massachusetts recently condemned 210 packages of coffee labeled and branded "Refined Coffee, Digesto Brand." This had been consigned from abroad via Boston to a New York concern, the label stating that "the excess of both caffeine and cafetannic acid had been removed," the claim being made that this improved its flavor, and that it refined the coffee from elements that caused various internal disorders. The Board of Chemistry made an analysis of the coffee and found this not to be true and that it had not been treated in any manner so as to produce a material difference between it and the average coffee. It was therefore decreed by the court that the coffee was misbranded but not adulterated, and that upon the payment of the costs of the libel proceedings and upon the delivery of a \$200 bond, with the stipulation that the shipment should not be sold contrary to the provisions of the Pure Food Act or the laws of any of the states, the packages should be delivered to the claimant.

RULES GOVERNING THE SALE OF MILK, BUTTER, AND MARGARINE IN GIBRALTAR.

(1) No sample of cow's milk shall contain less than 3 per cent of milk fat or less than 8.5 per cent of milk solids other than milk fat; (2) no sample of goat's milk shall contain less than 3.5 per cent of milk fat or less than 8 per cent of milk solids other than milk fat; (3) no sample of skimmed or separated cow's milk shall contain less than 9 per cent of milk solids; (4) no sample of skimmed or separated goat's milk shall contain less than 8.5 per cent of milk solids; (5) the amount of water in butter or margarine shall not exceed 16 per cent; (6) the amount of water in milk-blended butter shall not exceed 24 per cent; (7) the addition of any preservative or coloring matter to goat's or cow's milk shall, except when used in making butter, constitute an offense.

MEETING OF WESTERN AND NORTHWESTERN FOOD CONTROL OFFICIALS.

At a meeting called together at the Park Hotel in the city of Madison, Wis., Sept. 29-30, 1908, by Prof. D. F. Ladd, for the purpose of securing harmony of action as to rulings, standards and principles, and to promote the uniform enforcement of the food laws and co-operation among food officials of the states of the middle west, the following states were represented:

Commissioners Ladd, North Dakota; Barnard, Indiana; Wheaton, South Dakota; Emery, Wisconsin; Wright, Iowa; Chemists Fisher, Wisconsin; Shepherd, South Dakota; Bryan and Nehls, Illinois; West, Minnesota; Robinson, Michigan; Mitchell and McCabe, U. S. Department of Agriculture.

The following resolutions were unanimously adopted:

Resolved, That the sale of sausage and sausage meat conforming to the following standard will not be contested:

Sausage, sausage meat is a comminuted meat from neat cattle or swine, or a mixture of such meats, either fresh, salted, pickled or smoked, with added salt and spices and with or without the addition of edible animal fats, blood and sugar, or subsequent smoking. It contains no larger amount of water than the meats from which it is prepared contain when in their fresh condition, and if it bears a name descriptive of kind, composition or origin, it corresponds to such descriptive name. All animal tissues used as containers, such as casings, stomachs, etc., are clean and sound and impart to the contents no other substance than salt.

Resolved, That the sale of compounds composed of *sausage, cereals* and *added water* will not be contested if labeled as follows:

- Compound.
-Per Cent Sausage.
 -Per Cent Cereals.
 -Per Cent Added Water.

And if the names of all the ingredients be in the same sized type and the name of no one of them be given greater prominence than another.

Whereas, The addition of ice or water to shucked oysters has the effect of lowering and depreciating and injuriously affecting their strength, quality and purity; therefore be it

Resolved; That such addition constitutes an adulteration and the sale of oysters so adulterated will be contested.

Resolved, That the sale of ice cream conforming to the following standards will not be contested:

1. Ice cream is a frozen product made from cream and sugar, with or without natural flavoring, and contains not less than fourteen (14) per cent of milk fat.
2. Fruit ice cream is a frozen product made from cream, sugar, and sound, clean, mature fruits, and contains not less than twelve (12) per cent of milk fat.
3. Nut ice cream is a frozen product made from cream, sugar and sound, nonrancid nuts, and contains not less than twelve (12) per cent of milk fat.

Resolved, That the sale of ice cream defined as above, when mixed with gelatine not to exceed three ounces of gelatine to ten gallons of ice cream, or with tragacanth or other vegetable gum, or with eggs, will not be contested if the same is labeled and sold as "gelatin ice cream," or "gum ice cream," or "egg ice cream," as the case may be, and provided that the but-

ter fat content shall not fall below the standards as stated above.

Sept. 30, Forenoon, Park Hotel.

Resolved, That the sale of soft drinks and other food products containing soap bark or any of its preparations or cocaine will be contested.

Resolved, That the addition of caffeine to soft drinks is unnecessary, and reaching as it does largely the child population of our states, is fraught with extreme danger and constitutes a menace to health.

Sept. 30, Afternoon.

Resolved, That it is the sense of this convention that the enactment by the several states of measures to secure full and complete sanitary control of food producing, manufacturing and distributing establishments and agencies is both desirable and necessary.

Whereas, It has come to our notice that in some cases rotten, mouldy, decomposed and unwholesome tomatoes are being used in the manufacture of tomato catsups

Resolved, That the food officials of the country investigate the manufacture of this food in their respective states and adopt every possible measure to prevent the use of such material.

Resolved, That the practice of treating fish, ham, bacon, sausage and other meat products with so called "liquid smoke" and similar preparations is fraudulent and a menace to health, and the sale of products so treated will be contested.

H. R. WRIGHT,
Secretary.

BULLETIN NO. 29—MINNESOTA DAIRY AND FOOD COMMISSION.

St. Paul, Minn., Oct. 8th, 1908.

This department has been giving particular attention to food displays the past few weeks at the state fair and at various county fairs. The object in view has been to inform purchasers of food products in regard to methods employed by dishonest manufacturers in adulterating and misbranding food articles and to call attention to the necessity of state supervision.

In making these exhibits attention has been called to: "Butter" which was oleomargarine colored with coal-tar dye.

"Tomato Catsup" made from canning factory refuse, colored with coal-tar dye and preserved with salicylic acid.

"Olive Oil" composed chiefly of cottonseed oil.

"Maple Syrup" composed chiefly of cane syrup.

"Pepper" composed chiefly of ground olive stones, cocoanut shells, sawdust or other inert material.

"Currant Jelly" manufactured from refuse apple stock, commercial glucose and gelatin and colored with coal-tar dye, preserved with salicylic acid and flavored with currant juice.

"Cider Vinegar" made of diluted commercial acetic acid and colored with burnt sugar.

"Coffee" adulterated with chicory.

"Cream" testing 12 per cent butter fat, thickened with gelatin and colored with annato.

"Pickles" colored with copper salts, hardened with alum and sweetened with saccharin.

"Prepared Mustard" made of wheat flour, mustard hulls and adulterated vinegar and colored with coal-tar dye.

"Fresh Meat" taken from cold storage where it has been held for six months.

These analyses are representative of the more flag-

rant violations discovered by this department in enforcing the pure food laws. While the great majority of violations do not comprise such serious adulterations, the analyses quoted are genuine and demonstrate the extent to which some manufacturers will go in putting their products upon the market.

I am very anxious that the findings of our chemists shall be given the widest publicity possible, believing that in no more effective way can the pure food work in this state make progress.

In this connection I wish to state that the people of this state owe the public press a debt of gratitude for the high quality of foodstuffs on the market. The work of this department is peculiar inasmuch as its effectiveness is dependent upon publicity.

Public attention has been directed to the question of purity in food products and the dealers of the state have evidenced great interest in handling legal goods because their customers have demanded it. The success of the work in the future will necessarily depend upon the amount of publicity given to it.

Edward K. Slater,
Commissioner.

UNDRAWN POULTRY—KANSAS STATE BOARD OF HEALTH FORBIDS ITS SALE IN STATE.

Dr. S. J. Crumbine this week, in a letter to his inspectors, makes the announcement that, effective at once, "all poultry, game and fish must be drawn immediately upon slaughter." This order applies not only to butchers and grocers, but to farmers as well. The letter of Dr. Crumbine follows:

To the Food and Drug Inspectors: I have for some time been of the opinion that section 7, subdivision 6th under foods, could be reasonably applied to the sale of undrawn poultry, game, or fish, regardless of the fact or whether or not such undrawn poultry, game, or fish had been refrigerated, and in order that there might be no question concerning the matter, the attorney general was requested to give this department an official opinion, which opinion, under date of September 17th, is herewith submitted:

"Your letter of the 9th inst. has come duly to hand. You ask as to whether or not section 7, subdivision 6th, under foods, of chapter 266 of the Session Laws of 1907, said chapter being commonly known as the food and drugs law, would apply to the sale or exposing for sale of undrawn poultry, game, and fish.

"The portion of the law referred to (subdivision 6th) reads as follows:

"Sixth. If it consists in whole or in part of a filthy, decomposed, tainted or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or if it is the product of a diseased animal or one that had died otherwise than by slaughter."

"I am of the opinion that the words 'if it consists in whole or in part of a filthy, decomposed, tainted or putrid animal or vegetable substance,' would include the sale or exposing for sale of undrawn poultry, game and fish. But even granting that there may be a question as to the above words including such undrawn poultry, game and fish, there can be no question but that it would be included in the words 'if it consists * * * of * * * any portion of an animal unfit for food.'

"The jurisdiction of the health department would therefore be the same in regard to the said undrawn

poultry, game and fish as it would be in other matters mentioned in said chapter 266, laws of 1907."

You will, therefore, hereafter notify all dealers in meat products that all poultry, game and fish must be drawn immediately upon slaughter, and that the sale or exposing for sale at retail of slaughtered poultry, game or fish that is not properly drawn is in violation of the food and drugs law.

The above ruling does not apply to packers or shippers of such products as are sold outside the state and enter into interstate commerce.

Very truly yours,
S. J. CRUMBINE, M. D.,
Chief Food and Drug Inspector.

JUDGE JOHN C. EAGLETON, CANDIDATE FOR STATES ATTORNEY OF CRAWFORD, CO., ILL.

Judge John C. Eagleton, food inspector for the state of Illinois since the creation of the office in 1899, has been again honored by his county in being nominated by popular vote to the office of state's attorney of Crawford county. No doubt he will be elected by a



HON. J. C. EAGLETON.

large majority, as he is eminently qualified for the position and has heretofore held positions of trust and responsibility to the satisfaction of his constituency.

Judge Eagleton is a native of the soil, being born in the county in which he has lived ever since in 1866. He attended schools in Robinson and graduated from the high school in the class of 1885. He began working as a stone cutter while still attending school and after graduating from high school took up the study

of law and was admitted to practice in 1889. He was first elected city clerk of Robinson and then city attorney, to which office he was elected three successive terms. He was elected county judge of Crawford county in 1894. He was elected mayor of Robinson in 1905 and is now and has for some years been a member of the board of education in Robinson. Owing to the fact that there was no provision in the original Illinois food law for an attorney and the services of one being absolutely necessary in the prosecution of offenders under the law, it became necessary for one of the inspectors to be qualified as a lawyer and to give his attention to this branch of the work. Judge Eagleton has therefore acted as attorney for the Food Commission and has been eminently successful in the prosecution of suits instituted by the commission. His advice has also been availed upon in drafting new state food legislation, and the present Illinois food law, no word or phrase of which has yet been found faulty from a legal or constitutional standpoint, is the child of his thought. He also assisted in drawing up the American Food Journal's national food bill, which if enacted would have eliminated much of the dissatisfaction existing under the present law, encouraged the formation of efficient state laws, and have been within the powers granted to the central government by the several states.

Judge Eagleton is still in the prime of life, and if elected to the office of state's attorney of Crawford county, will certainly justify the trust placed in him by his neighbors and friends.

NEW MILK ORDINANCE OF CITY OF CHICAGO. Rules Requiring Tuberculin Test of Cows.

Be it ordained by the City Council of the City of Chicago:

MILK.

SECTION 1. No milk, cream, buttermilk or ice cream shall be sold, offered for sale, exposed for sale or kept with the intention of selling within the city of Chicago after January 1, A. D. 1909, unless such milk or cream or the milk or cream contained in buttermilk and ice cream, be obtained from cows that have given a satisfactory negative tuberculin test within one year; the cows having been satisfactorily tested shall be marked "tuberculin tested" and shall be numbered and a certificate shall be filed with the division of milk inspection of the Department of Health of the city of Chicago upon forms furnished by the Commissioner of Health, giving the number, a brief description of the animal, the date of the taking of said test and the name of the owner. Said certificate shall be signed by the person making such test; provided, however, that from January 1, 1909, for a period of five years—to-wit, until January 1, 1914, milk or cream or buttermilk and ice cream made from milk or cream, obtained from cows not tuberculin tested or not free from tuberculosis, may be sold within the city of Chicago if the milk or cream from said cows is pasteurized according to the rules and regulations of the Department of Health of the city of Chicago.

SECTION 2. Any milk, cream, buttermilk or ice cream offered for sale, exposed for sale or kept with the intention of selling within the city of Chicago which shall be found within the city in violation of Section 1, shall be forthwith seized, condemned and destroyed by the milk and food inspectors or other duly authorized agents or employees of the Department of Health of the city of Chicago.

Section 3. This ordinance shall be in full force and effect from and after January 1, 1909.

BUTTER.

Be it ordained by the City Council of the City of Chicago:

Section 1. No butter shall be sold or offered for sale or kept with the intention of selling in the city of Chicago after January 1, 1909, unless such butter be made from milk or cream obtained from cows that have given a satisfactory negative tuberculin test within one year; provided, however, that from January 1, 1909, for a period of five years, to wit, until January 1, 1914, butter made of milk obtained from cows not tuberculin tested or not free from tuberculosis may be sold in the city of Chicago if the milk or cream from which such butter was made was pasteurized according to the rules and regulations of the Department of Health of the city of Chicago.

Section 2. It shall be unlawful to sell any butter in the city of Chicago, unless there be stamped on the package in plainly legible letters of not less than one-eighth inch type: "Made of milk (or cream) from cows free from tuberculosis as shown by tuberculin test," or, "Made from milk (or cream) pasteurized according to the rules and regulations of the Department of Health of the City of Chicago."

Section 3. Any butter offered for sale, exposed for sale or kept with the intention of selling in the city of Chicago, which shall be found within the city in violation of this ordinance, shall be forthwith seized, condemned and destroyed by the milk and food inspectors or other duly authorized agents or employees of the Department of Health of the city of Chicago.

Section 4. This ordinance shall be in full force and effect from and after January 1, 1909.

CHEESE.

Be it ordained by the City Council of the City of Chicago:

Section 1. No domestic cheese shall be sold or offered for sale or kept with the intention of selling in the city of Chicago after January 1, 1909, unless such cheese be made from milk or cream obtained from cows that have given a satisfactory negative tuberculin test within one year; provided, however, that from January 1, 1909, for a period of five years, to wit, until January 1, 1914, domestic cheese made of milk obtained from cows not tuberculin tested or not free from tuberculosis, may be sold in the city of Chicago if the milk or cream from which such cheese was made was pasteurized according to the rules and regulations of the Department of Health of the city of Chicago.

Section 2. It shall be unlawful to sell any such cheese in the city of Chicago unless there be stamped on the package in plainly legible letters of not less than one-eighth inch type: "Made of milk (or cream) from cows free from tuberculosis as shown by tuberculin test," or, "Made from milk (or cream) pasteurized according to the rules and regulations of the Department of Health of the city of Chicago."

Section 3. Any cheese offered for sale, exposed for sale or kept with the intention of selling in the city of Chicago, which shall be found within the city in violation of this ordinance, shall be forthwith seized, condemned and destroyed by the milk and food inspectors or other duly authorized agents or employees of the Department of Health of the city of Chicago.

Section 4. This ordinance shall be in full force and effect from and after January 1, 1909.

THIRD ANNUAL CONVENTION AMERICAN MEAT PACKERS ASSOCIATION.

(Continued from page 15.)

Good water and good coal are a boon to the engineer, and will go a long way to eliminate the troubles of the boiler and engine room. On account of the complexity of the operations involved and which require refrigeration, steam, lighting, water and air pressure, electrical power, and pumping, few industries are so absolutely dependent upon the proper management and efficient working of their power plants as the packing industry. Therefore, no means should be spared to place the power plant on a most efficient basis, and in this connection the chemist can be of no small assistance.

PICKLING AND PICKLE ANALYSIS.

The one subject that all packers, both large and small, are always interested in is pickling. Much work has been done on the study of the various reactions undergone during the process of pickling, but the various investigations may be said to have only begun, as the reactions involved are of an extremely complex bacteriological and chemical nature, which will require long and exhaustive research to determine.

There are few packers who have not at some time had trouble with their pickle cellars. The greatest loss is occasioned by the so-called "sour meats." Several investigators in this country and Europe claim to have isolated the specific bacteria that is claimed to cause the trouble, but their work requires verification before definite conclusions can be arrived at.

No doubt, the pickling department could derive a great deal of benefit by getting in closer touch with the chemist and have him assist in eliminating the various troubles and improving the various products. But he is usually not consulted until some very serious trouble arises and the pickling department is "up against it," as they say. Then he is usually expected to diagnose the trouble then and there and to give advice to eliminate the trouble forthwith. Needless to say these troubles are usually not easily remedied.

The analysis of pickle before and after use yields some very interesting figures. I will give a few examples of the amounts of the various pickle ingredients absorbed by the meats during pickling:

	Fancy Ham Pickle.		California Ham Pickle.		Belly Pickle.		Beef Ham Pickle.	
	% absorbed by meat.	% left in pickle.	% absorbed by meat.	% left in pickle.	% absorbed by meat.	% left in pickle.	% absorbed by meat.	% left in pickle.
Salt	37.67	62.33	43.57	56.43	23.45	76.55	50.77	49.23
Sugar	83.60	17.40	83.08	16.92	81.27	18.73	100.00	....
Saltpetre	47.97	52.03	58.38	41.62	50.03	49.97	68.16	31.84

SALT PERCENTAGE IN THE MEATS.

I believe I am safe in saying that not all the saltpetre is taken up by the meat, as some is probably destroyed by bacteria, probably some of the denitrifying species. The same may hold true of the sugars. I found that the sugar remaining in the pickle had changed to quite an extent. The sugars used were good grades of second sugars and contained about 3 to 4 per cent of invert sugar. The sugar remaining in the pickle was 40 to 50 per cent invert sugar. It may be that some of the dissolved protein bodies, or meat bases in the pickle have an inverting action on the sugar.

It is well to occasionally have the smoked hams analyzed as to their salt percentage, which sometimes varies within wide limits. Taking figures from a long

series of analyses of hams of a standard grade, I find that the salt content of the butt-end varies from 7.58 to 10.9 per cent of salt, with an average of 9.12 per cent. The salt percentage of the center cut of the body ranges from 3.14 to 6.36 per cent of salt, with an average of 4.77 per cent. The salt percentage of the shank ends vary from 3.57 to 7.22 per cent of salt with an average of 5.04 per cent.

The salt content of the smoked ham varies considerably in the different parts, as the following analysis will show. The rind contains 3.42 per cent of salt; the fat below the rind, 1.62 per cent; the meat commencing one inch below the fat contained 3.73 per cent; the meat in the center, 4.12 per cent; and the meat taken one inch above the under side contained 5.46 per cent of salt.

THE CAUSE OF SOUR MEATS.

Coming back to the important question of "sour meat," it may be said to be out of place in a paper dealing with packinghouse chemistry. But it is of so much interest to all concerned that I will be excused for touching the subject again. The recent investigation of Dr. E. Klein, of London, England, in which he attributes the souring of meats to a specific microbe which he isolated from sour hams, opens up interesting discussions.

But he does not state how the bacteria got into the knee-joint of the ham, and that is the part at which putrefaction is most pronounced, from which the logical conclusion is drawn that that is the starting point of meat souring. This conclusion is borne out by practical experience.

Dr. Klein states that the bacteria is not motile; that is, it is not helped by locomotion in its progressive growth, but must rely on gradual multiplication for its progress. If the bacteria comes from outside sources, as is usually the case with bacterial infection, I cannot reconcile the idea of a non-motile bacteria, gradually working its way from the outside of a ham, and not affecting the ham until it reaches the knee-joint, and there first developing its virulence. If that held true, the knee-joint should be the last place affected.

I do not want to criticize Dr. Klein's work, nor detract any of its value, but I am only drawing my con-

clusions from facts as they are presented to me. And no scientist objects to honest criticism, as that gives him a view of the other side and will be but a help to him.

WHAT THE CHIEF CAUSES OF SOURS ARE.

After years of observation I am firmly convinced that mechanical injury and consequent improper cooling is the cause of meat souring; and if not the sole cause, at least the predisposing cause.

Knowing that ham souring always starts from the knee-joint, it often struck me when watching hogs when they were shackled and put on the wheel that very likely the animal in its struggles caused severe wrenchings to take place in the knee joints. The development of the ligaments of the hog by virtue of its mode of living and its sluggish nature is not very pro-

nounced, and when shackled by one leg on the revolving wheel and twisting and squirming and doing all kinds of acrobatic stunts, it is but reasonable to assume that in some cases serious injury is done to the knee-joint, and incipient inflammation set up.

After killing and dressing the hog is put in the coolers. But with the death of the animal that does not mean that all ends here, for the cell activity persists for a long time, and all respiration still requires oxygen and produces carbon dioxide. This requires that a good circulation of air be kept up in the coolers to constantly take away the products of respiration and replenish the oxygen supply.

This is a condition seldom arrived in the average hog coolers. This becomes accentuated as the hog cooler becomes filled up as the killing progresses. The ham of the hog, being a thick mass of meat and muscle with a thick layer of fat on the outside, it is easy to see that a hog whose knee-joint has been injured and then placed where the products of cell respiration and animal heat are not readily conducted away, is apt to develop putrefactive areas at the knee-joint—or become sour, as it is generally called.

The same holds true of cattle. I have often watched cattle being driven out of the cattle pens to the runway that leads to the killing beds. The cattle pens are usually paved with bricks. These are, of course, usually wet and covered with slush, and it is not an uncommon sight to see dozens of cattle repeatedly slip and fall on their sides and hindquarters when they are driven out of the pens. There is no doubt that severe injury is done to the ligaments and hip-joints in some cases. Incipient inflammation sets in, and with faulty cooling we have "sour" joints.

PROOF OF THE PART COOLING PLAYS.

To bear out the statement that cooling plays a prominent role in these cases I will say that sour joints are almost always found on the right side, the so-called closed kidney side. Here the kidney fat adheres to the side of the beef, and retains, therefore, the animal heat for a much longer time than the left, or loose kidney, side. It is not uncommon to find that when the left half of the beef has become cold and hard the right side still has an appreciable amount of heat.

Furthermore, prompt inspection and running a tryer up to the hip-joint, and draining all the accumulated fluid from it, will help to prevent souring.

The many and various questions that arise in the operation of a modern packinghouse require that the chemist be a man of broad experience and training, versatility and profound study. There are many questions of great importance in the packing industry that it has not been attempted as yet to solve, and that can only be solved by the chemist and bacteriologist by years of patient work and research.

The past has conclusively shown that any money expended in that direction has been well spent. It takes the patience of the steadfast, plodding scientist to attack questions of such complicated character, and it is the employer and the world at large who reap the benefit of his work, for which he gets little but the glory.

The Committee on Resolutions then presented the following resolutions which were unanimously adopted and are as follows:

Resolutions.

Resolved: That while the packers have patiently borne the severe losses incurred through post mortem condemnation of animals slaughtered, such losses amounting to more than two million dollars annually,

we consider it a grievous injustice that slaughterers should be compelled to shoulder this loss, in view of the fact that all stock is purchased in the open market in good faith at full prices; and, as the Government deems it necessary to confiscate such property for the preservation of the public health, it is only honest and fair that the public and not the packers should bear the loss caused by condemnations.

Resolved: That in the changes and modifications that have been made in the Meat Inspection rules, we recognize the intelligent and untiring work of the officers of our Association in laboring with the Bureau of Animal Industry for the correction of rulings which interfered with the practical workings of the law. And we also acknowledge the fairness and spirit of justice with which our representations have been met by the Government officials.

Resolved: That this Association repeat its resolution protesting against the Oleomargarine Law.

Resolved: That this Association express its heartfelt thanks to the press of Chicago and the country for its full and fair reports of the proceedings of this convention.

Moved: That a vote of thanks be tendered to Secretary Wilson, Dr. A. D. Melvin, Dr. A. M. Farrington, Dr. Rice P. Steddom, Mr. George P. McCabe and Mr. Jasper Wilson of the Department of Agriculture, Senator Warren and Representative Scott, for the fairness and courtesy which they have shown our representatives who have had occasion to confer with them upon matters of public interest.

Resolutions were adopted from the floor of the convention offering the hearty cooperation of the American Meat Packers' Association to the National Wholesale Grocers' Association and the National Confectioners' Association.

The Auditing Committee made its report after which the Nominating Committee presented the following report, adopted by acclamation:

Pres't., Gen. Michael Ryan, Cincinnati, Ohio.

V. P., F. F. Klinck, Buffalo, N. Y.

Sect'y., G. L. McCarthy, New York.

Treas., Jos. L. Roth, Cincinnati, Ohio.

Executive Committee:

Jas. S. Agar, Chairman, Chicago,

Chas. Rohe, New York,

Jos. Allerdice, Indianapolis,

Jacob Beiswanger, Philadelphia,

B. W. Corkran, Jr., Baltimore,

C. H. Ogden, Pittsburg,

F. H. Fuller, Chicago,

A. G. Glick, Marshalltown, Iowa,

J. W. Garneau, St. Louis.

Convention recessed to 2 p. m.

Convention opened at 2 p. m. with President Agar in chair and was known as "superintendent's afternoon," a question box being placed on the platform to receive questions for the "Discussion on Practical Packinghouse Operating Problems."

This discussion consumed the major part of the afternoon session after which resolutions were adopted thanking the officers of the Association for the efficient manner in conducting the convention. Resolutions were also adopted thanking the Chicago members and the Chicago Committee for the glorious entertainment and also the management of the Grand Pacific Hotel for many courtesies to the delegates, after which the convention adjourned sine die, the date and place for

holding the next convention was left to the Executive Committee, but will probably be held in Chicago the second week in October, 1909.

The Banquet.

The second annual banquet was held at the Auditorium Annex the evening of October 13, 1908. It was tendered by the Chicago members to the association, being an Old English Dinner and the crowning event of the convention. The committee prepared a most unique menu souvenir consisting of 18 pages and cover in pamphlet form, which contained many beautiful designs and reproductions of the coats of arms of the counties of England, also quotations from the famous authors of all times. One especial unique feature of the menu program was a half-tone reproduction of the banquet of last year, many of the banqueters being seated at the same tables as the year before recalled pleasant memories of the previous occasion. The program of the evening was carried out as follows:

SPEAKERS.

Introduction of Toastmaster J. R. Morron.....
President James S. Agar
 WelcomeL. Harry Freeman
 ReplyGeneral M. Ryan
 "Reminiscences of the Yards".....
Rev. Father M. J. Dorney
 "In Strictest Confidence".....Strickland M. Gillilan
 John P. Scanlan, Baritone.
 Weber Quartet.

Many happy and able speeches were made by those assigned to their subjects, and one of the most pleasant events of the evening was the presentation of beautiful tokens of appreciation and regard by the members of the convention to Mr. E. B. Merritt, chairman of the Banquet Committee, and to Mr. Arthur D. White, the chairman of the General Entertainment Committee. After the presentation of the tokens by General M. Ryan, both gentlemen made fitting responses, which were enthusiastically applauded by the guests. The banquet came to a close, the delegates carrying their souvenirs, old English pipes and ale mugs and the menu programs, to their homes.

Boat Ride on Lake and River to the Great Drainage Canal.

The final entertainment furnished the delegates was a trip down the Chicago River and the Drainage Canal. The party left the Clark street bridge in four excursion boats at 10 a. m., in which were entertainers and music. A luncheon was served immediately upon arrival at the power house at Lockport, after which inspection of the power house and controlling works took place. The train bearing the delegates left Lockport at 4 p. m., arriving in Chicago at 5:30 p. m., and thus came to a close the best entertainment ever furnished delegates to any convention.

CONVENTION NOTES.

The scientific addresses of the convention received the undivided attention of the delegates.

* * *

The corridors of the Grand Pacific Hotel were far more crowded than at the National Republican convention.

* * *

Prof. Grindley was on the program for an address on "Methods Used in Saltpeter Investigations," but owing to the fact that he had not completed his investigations and the report must first be presented to the government, he changed the subject of his address to "Importance of Research to Packers."

POWER OF CITY TO HAVE DAIRY COWS AFFECTED WITH TUBERCULOSIS SUMMARILY DESTROYED WITHOUT COMPENSATING OWNER.

In *City of New Orleans vs. Charouveau*, 46 Southern Reporter, 911, the supreme court of Louisiana holds that power "to maintain the city's cleanliness and health, and to this end to regulate the location of, and the inspection and cleaning of, dairies, * * * and to adopt such ordinances and regulations as shall be necessary or expedient for the protection of health and to prevent the spread of disease," is a plenary delegation of police power in connection with the police of dairies, and invests the city council with all the authority which the state itself is possessed of to require dairy cows in a large city to be inspected, and, if found to be affected with tuberculosis, to be destroyed, without compensation to the owner.

It being shown that tuberculosis in a cow may be ascertained by a practically infallible test, and it being further shown that the presence of a cow so affected in a dairy in a city is a serious menace to the public health, the public authorities have the same right to require the destruction of such cow without compensation to the owner and without judicial inquiry as they have to acquire the destruction of decayed fish, meats, and vegetables. The city council may exercise its police power through the agency of boards or inspectors.

In this case the defendant refused to permit the veterinarian of the board of health to administer the tuberculin test for tuberculosis to one of his cows for ascertaining whether it was affected with the disease, and was prosecuted and convicted under a city ordinance of the character stated. The supreme court affirms the judgment. As above stated, the court does not consider the ordinance null, because the city council had no power to pass it, nor on the ground that it authorized the taking of property without due process of law, in that no compensation was required to be made to the owner of the cows which were to be destroyed as being affected with tuberculosis. It also declares that it is the invariable custom to delegate such authority to a board or other functionary, and the authority to do so is well recognized.

In the contention that dairy cows affected with tuberculosis are not so serious a menace to the public health as to render them fit subjects for this extreme exercise of the police power, the court says that the defendant raised a question of fact which could be settled only by the expert evidence in the case; and the evidence was all to the contrary of the contention.

Would it be practical in a large city to institute a judicial inquiry in the case of every diseased cow in every dairy? Impure food, decayed fish, meats, and vegetables are subjected to the doom of the inspector, without appeal. The court sees no reason why in a large city the same should not be done with dairy cows, which by a test recognized to be practically infallible are found to be a serious menace to the public health.

The daily papers and the trade press as well are under great obligations to Mr. L. M. Byles, the press agent of the convention. Mr. Byles saw that every one got the news and played no favorites.

ADDRESSES DELIVERED
AT THE
Twelfth Annual Convention
OF THE
Association of State and National Food and
Dairy Departments
At Mackinac Island, Michigan, August 4th to 7th, 1908

Water and Starch in Manufactured Meat Products.

BY FLOYD W. ROBISON, STATE ANALYST, LANSING, MICH.

Among chemists and certain manufacturers it has been known for some time that flour and water were in some instances being used in the manufacture of sausages. By the term sausages is meant throughout this article, the ordinary sausage, bologna and Frankfurts. While, in many cases the use of flour and water has been known, yet the cases where its use is unknown appear to be nearly if not quite as frequent. From the German reports (Ostertag) it appears that the practice has been very common for thirty years in certain parts of Germany, while in other sections, its use is entirely unknown. In the case of Armour & Company vs. A. C. Bird, Mich. Dairy & Food Commissioner in Ingham County, Circuit Court in Chancery, the plaintiff brought German butchers as witnesses who testified that in Germany the practice of adding flour and water was widespread. The state on the other hand, produced several witnesses, Germans of large experience who testified that in their experience in Germany in their localities, no flour and water were used. This up-to-date testimony bears out the statements of Ostertag.

On the other hand, the state produced many witnesses, consumers, housekeepers, who insisted that if flour and water were used in sausages, they were deceived as they expected them to be pure meat products. It is very clear from the results of our investigations in the matter, that there has been in the last two or three years especially a decidedly growing tendency to a greater use of flour and water and due, no doubt, to the activity of the retailers of the specially prepared flours in disseminating the information as widely as possible. The claim of the large manufacturers who use flour is that it is for the purpose of acting merely as a binder and not to adulterate the article in question. The claim that it is absolutely necessary to add water in order that the meat may be stuffed into thin casings and to produce a juicy consistency as demanded by the consumer. A further representation is made that the flour or cereal as it is called, acts as an absorbent of fat and hence is necessary in pork sausage especially. Some manufacturers claim that they use cereal in bologna and Frankfurts but do not find it necessary or desirable in pork sausage and thus the matter rests, one manufacturer denying what another affirms, as absolutely necessary. The experiments conducted in our laboratory embraced every phase of the matter which was afterwards counted in Armour & Company's bill of complaint. Appearance, texture, palatability, marketability, consistency and practicability. It was found practicable to manufacture a pure

meat sausage and such sausage was usually of a decidedly higher quality than a sausage made with either flour or water or both. In a high grade sausage, it cannot be said that flour or water or both improve the appearance, consistency and certainly not the palatability of the product. It is true that when low grade meats, inferior cuts of meats and large quantities of hearts, ox lips, ears, etc., are used as sausage, that the use of flour may improve the binding power of the meat, and the addition of water to such products may and undoubtedly does facilitate the stuffing into thin casings. But the presence of flour in such a product has the effect of disguising the presence of the inferior meats, and thus comes clearly counter to that section of the food laws which says, an article is adulterated, "if by any means it is made to appear better or of greater value than it really is." And again even in meats with inferior binding power, this property may be improved by the use of higher grade meats such as veal for example, and in this way the improvement in the appearance of the product is a true index of the actual improvement in the quality of the product.

That the prime objects of the use of flour is for the purposes of covering up the identity of certain meats, and permitting the incorporation of water, there can be no doubt. This is shown commercially, in the fact that where flour and water are not used, the product is always a high grade one and that the more of the low grade meats that have entered into the product, the greater the quantity of flour used.

The flour which has found the greatest commercial distribution in this country is corn flour. This is not the flour that butchers generally, especially German butchers have been most in the habit of using. Potato flour is the flour used to the greatest extent in Germany and the one most familiar to butchers. Corn flour has been sold in a disguised form to most local butchers and its identity seems to be known in but few instances and those by chemists, and superintendents and not actual sausage makers.

The Bureau of Animal Industry has a ruling prohibiting the use of potato flour in meat products and undoubtedly this ruling more than any other thing has contributed to the use of corn flour so generally. Just why the ruling should prohibit the use of potato flour as a binder and absorbent, and permit the use of any and every other flour, especially corn flour, I have been unable to determine. Potato flour has a slightly higher absorbing power in the cold than has corn flour, but when taken at the temperature of 70 degrees C. which is more nearly the temperature to which bolognas and Frankfurters are subjected during the process of manufacture, there is little difference in the

absorbing power between the two flours. In our experiments we used a test tube which would give as nearly as possible the same conditions as in Frankfurts and bolognas. (Kickton, a German chemist, experimented in this same way with potato flour.) There was no difficulty in getting five parts of either corn or potato flour to take up and hold in a firm mass 50 parts of water. This absorbing power would without doubt be increased by mixing the flour with the meat because of the increased surfaces exposed.

The prime excuse for the use of flour, or cereal as it is called, given by the manufacturer is that the flour acts as an absorbent of the fat. That it might hold some of the fat we do not doubt, but when it becomes apparent that in pork sausage, which is usually of higher quality than Frankfurts and bologna, and also usually contains much more fat, usually a much smaller quantity of flour is used, the argument loses much of its force.

In pursuing the investigation into this matter, we were mindful of numerous complaints by women especially, that sausage purchased by them at times would not hold up, while frying, by which statements they meant that it would dwindle away until there was scarcely nothing left. This led us to discover that certain butchers who in reality pride themselves on making sausage without cereal were in reality loading the product with water and thus taking advantage of the enormous combining power of lean meat. A product manufactured in this way would fry away when put on the frying pan and this while to be severely condemned yet could be quite readily detected in the kitchen. But the introduction of flour or starch into the product very cleverly concealed the water, because in frying it acted as a frame work preventing undue shrinkage and thus the housewife supposed she was getting pure meat when the adulteration with water had been covered up merely.

Flour in sausage does not improve the consistency nor act as a binder when the product is put into the frying pan. In every instance (and a great many experiments were conducted) where flour was used, in frying, the product became crumbly and would stick to the frying pan, thereby making it difficult to fry without the product breaking up. The sausage made from pure meat only acted like meat in the frying pan, frying nicely remaining in a compact form, its consistency and texture being all that could be desired.

Without doubt some forms of modern machinery have contributed to the addition of water. The so-called silent cutter is used on nearly all the products put up with water. It is especially constructed to take advantage of the great combining power of lean meat, and the butcher does not use this machine long before it becomes very apparent to him that meat ingeniously handled, can be made to take up an enormous quantity of water.

Two other points without attempting to give too much detail. The introduction of flour into meat products has a decided effect from a dietetic point. Pure wholesome cereal is all right in its proper place, but what are the dangers incidental to the diet of an invalid, who perchance may be suffering from a by no means uncommon kidney disease, of the introduction into sausage of a starchy material which in itself may be perfectly wholesome and yet by its presence removing from his bill of fare a very valuable and otherwise desirable food product.

And again the sense of this organization is in favor of rigid, sanitary reform on the preparation of articles of food. We all know that grave as is the introduction of water into milk from a food standpoint, yet vastly of greater consideration is the great danger of actually infecting our people with different forms of disease the result of a polluted water supply.

In the court case heretofore referred to, in spite of the fact that the Bureau of Animal Industry regulations require that "only wholesome water" shall be used, yet so far as the record of any witnesses in the case were concerned at no time had the water been withheld from the meats because of a polluted water supply. Those of us who have access to the reports of the Health Department of the City of Chicago, know with what frequency during the past few years that water has been condemned as polluted and the public warned in regard thereto. These points are merely incidental, however, but do illustrate how a commercial consideration of this kind makes more complex the State and municipal health problems. One step further. I am here reminded of the evidence in many cases of sausage poisoning being traced to a bacillus which we find so prevalent in a polluted water supply. So we may see a greater danger in the practice of adding water even though it were construed to be a legitimate practice.

The detecting of flour is not difficult. To demonstrate added water is not so simple, especially when it may be added in small amounts, but when the moisture limit of fresh meat is exceeded, and I may add simply that that ratio (to-wit), the ratio between protein and water in fresh meat, is a very constant one, the further addition of water is easily detected. From our work in this matter, I feel able to state that the addition of water and flour does not improve the palatability, texture, consistency or appearance of the finished product except wherein it conceals inferiority, but on the contrary produces an inferior article. And further I am able to state that it is possible and feasible commercially to prepare sausages without either cereal or added water, and that such products are high grade articles and their appearance is some index at least of the quality of meats entering therein.

PUBLICITY IN FOOD AND DAIRY LAW ENFORCEMENT VS. PROSECUTION.

BY L. DAVIES, DAIRY AND FOOD COMMISSIONER, DAVENPORT, WASHINGTON.

Mr. President, Ladies and Gentlemen:

Before we can have results there must have been some cause or causes to produce them. The many investigations carried on the past two or three years on the part of federal and state officials and the beneficial results obtained therefrom were the result of exposure of the methods employed in their business transactions by those under investigation, and a consequent demand by an injured public for an overhauling of affairs and betterment of conditions. Life insurance company investigations for instance were caused by exposure of the methods employed by the management of these companies in the investment and manipulation of their funds. So with the question of pure foods. There have been food laws for years, but not until the public came to realize the danger in consuming foods not manufactured under sanitary conditions and which were, in too many cases, manufactured of, preserved with or colored by some substances or in-

gredients that were putrid, unwholesome, or perchance poisonous, were the recent stringent dairy, food and drug laws enacted.

The Dairy, Food and Drugs Act of the state of Washington requires the Commissioner to publish the results of the analytical work done in the office of the state analyst, particularly to report the illegal products found, giving the brand, name and address of the manufacturer, the analytical report and that of the lines collected. No other purpose could have been in the minds of the legislators when passing the act than that of giving the widest publicity to the findings of food officials.

A child knows instinctively that it must have pure air to breathe and that it must have nutritious foods and when it is deprived of either, or both of these it makes its wants known in the usual childish way, by crying. In its more mature years this same child, if not supplied with healthful and life giving foods, knows that something is wrong and, having attained to that age where it is supposed to use judgment and knowledge in the affairs of life, realizes that not it alone but the whole human race, in order to acquire and maintain a superior physical and mental development, must have the same pure air and wholesome food that the child craved in its infancy.

This understanding by the individual of what constituted healthful and life sustaining food slowly but surely permeated the public mind and convinced it that some so-called foods, colored, preserved, or base imitations, were as poisonous as the deadliest drug. It was the publicity given this by individuals that convinced the public; it was the publicity given this by the public that caused our different legislatures to pass effective food laws, and it is this same demand for publicity that now, in turn, requires food officials to strictly enforce the law requiring labeling of goods for the advice of the consuming public and publishing for the enlightenment of the same public all brands of foods that are not true to such label.

If one of you gentlemen should go into the mountains or plains of your own state and, after careful investigation both by experts and personally, buy a silver, gold, coal or other mine and later find that, in spite of all your precautions, you had purchased a salted mine, you would feel greatly injured and leave nothing undone towards bringing the offending parties within your grasp that they might be punished to the full extent of the criminal laws. If a customer comes into your store and buys an article for what it is not, is not the offense as great from a legal standpoint, and how much more so from a moral point of view for, perchance, the customer who takes the article serves it and it is taken into the delicate stomachs of numerous little children and human lives are thereby endangered. I believe it was our honorable secretary of agriculture who said, and a saying with which many here are very familiar: "If I go to a grocery store and buy axle grease and take it home and spread it on my bread and eat it, it is my privilege to do so, but if I go to a grocery store and ask the grocer for butter and he gives me axle grease, representing it to be butter, there is a compounding of villainy that ought to send some one to jail." And in this, gentlemen, do not misunderstand me. I fully realize how impossible it is for the retail grocer when he buys his goods with all the guarantees furnished to know whether he is securing good articles and what they are represented to be or not.

But right here the publicity theory comes to your aid as well as to that of the consumer. The law requires labeling of goods and, if adulterated or imitations, the ingredients to be stated; it also requires the presence of preservatives and coloring matter used to be plainly stated on the label that the purchaser may use his own discretion in buying and that you may be advised as to what you are placing on your shelves. After the goods are labeled and on the shelves it is the province of food officials to see that they are true to label. This can only be determined from analytical work. As before stated, the Washington statute requires the publication of these results which is being done in bulletin form. For you or me to be told that catsup contains a harmless coloring matter or to be given a general warning against unwholesome foods is a waste of time and energy. What the public demands is that the illegal article be specified by name, including brand, that the name and location of the manufacturer be specified and it is better to state the name and location of the retailer from whom purchased that he may be put on his guard. And, in the dissemination of this information to the public the trade papers and daily press are powerful agents of good.

Within the last few months in the state of Washington a very decided improvement is noted on the part of manufacturers in the preparation and labeling of their output. With the exception of a few articles the percentage of mislabeling and otherwise illegal goods is gratifyingly lower.

The extent to which man will sometimes go in the preparation of human food and for purposes of personal gain is forcibly shown by an instance that came under my jurisdiction a short time ago. I was asked by the health officer of a flourishing city in the state to visit them as there seemed to be something wrong with their meat supply. Upon my arrival I discovered literally tons of summer sausage and dried beef ready for the market and some of which was being served at a restaurant in the city, the proprietor of the restaurant and the owner of the meat being the same party. Close investigation showed all this meat to be putrid and alive with maggots. The meat was forthwith destroyed and the offender arrested and punished with as heavy a fine as permitted under the statute. It is a pleasure to know that public sentiment has forced this man to leave the city, publicity was his undoing. As in this case, arrests are frequently made and will continue to be made, but educate the public as to the inferior articles of food and it will force a betterment of conditions much sooner than prosecutions can be made to do.

ENFORCEMENT OF NEW ILLINOIS FOOD LAW

BY T. J. BRYAN, STATE ANALYST, ILLINOIS.

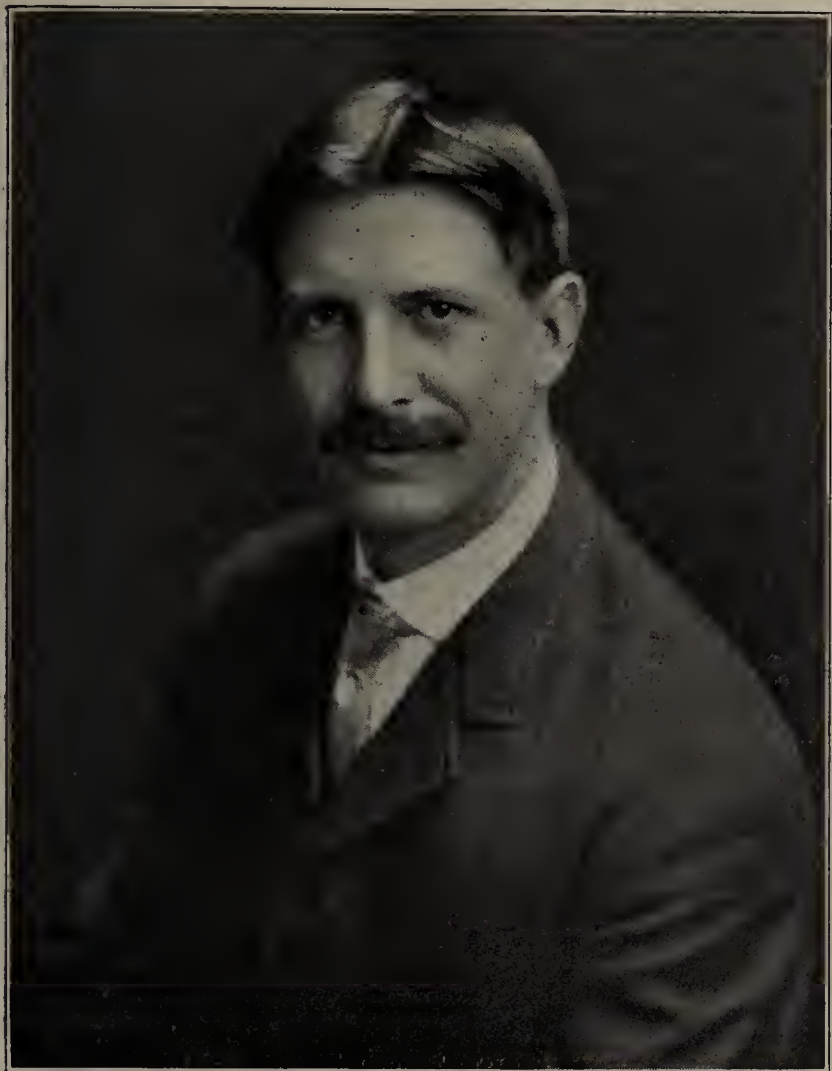
The friends of new legislation frequently overestimate the benefits to be derived from a law just enacted, and underestimate its defects. It is not at all strange therefore that the members of the Illinois State Food Commission are frequently asked about the workings of the new law. A year ago these questions could not be answered in the light of experience; today they can. And with the exception of a few minor matters which were appreciated as being of doubtful value at the time of its passage, the law still seems to us to possess all the merits claimed for it at that time.

Seven very important changes were made by the new law.

1st. The new law requires that every manufactured food, and all food put up in package *be branded* with the true name of the article. Prior to this act there was no such requirement except in the case of oleo-margarine, renovated butter, vinegar and artificial or imitation extracts and jellies.

2nd. The old law of 1899 contained no provisions against misbranding. The new law contains all the provisions of the national law relative to this matter.

3rd. Sanitary inspection is authorized and the use of unsanitary utensils and containers for milk or cream is specifically forbidden. Under the old law there was no protection to the public against unclean milk or food manufactured or stored in unsanitary



DR. T. J. BRYAN.

places. The provisions requiring the production of food under sanitary conditions are still limited but we feel nevertheless that great progress has been made in the right direction.

4th. Under the old law there was a standard for milk but no penalty for sales of milk below standard. Under the new law there is a standard for milk and there is a penalty for selling milk below standard.

5th. Under the old law there was no provision for making standards for foods. Now there are provisions.

6th. It was necessary under the law of 1899 to prove in each case that a preservative was unwholesome or injurious; under the new law formaldehyde, hydrofluoric acid, boric acid, salicylic acid and all compounds and derivatives thereof are declared unwholesome and injurious.

7th. There is now for the first time a guarantee clause in the law. This protects the innocent retailer

from prosecution, and fixes the responsibility on the truly guilty party. This provision of the law seems to be better suited to the public needs than had been hoped. It not only protects the retailer but by bringing the responsibility home to the guilty party effects a more speedy change for the better.

With these new requirements for branding and the prohibition of misbranding, with provision for sanitary inspection and standards for food products, with commonly used preservatives declared unwholesome, and a penalty hanging over the heads of the party primarily guilty and back of all commissioners, with an enlarged force of inspectors and chemists to enforce the law it would have been strange if food dealers had not taken notice. The dishonest dealer began to feel at once that he must be honest or at least careful. The dealer naturally honest but driven to adulteration and the use of false and misleading labels in order to compete with his dishonest competitor, welcomed the opportunity to be honest and live. Even before the law went into effect manufacturers began submitting their complete line of labels for criticism. Those who wanted to know how far they could go and remain within the letter of the law received no assistance. The great majority who wished to comply with the spirit of the law received all the help we could give them. There have been 650 hearings for violation of the new law during the first year and change in labels has been going on all that time. The goods that were misbranded were sold in Illinois but many were produced in the adjoining states of Iowa, Minnesota, Indiana, Michigan, Kentucky and Missouri. The Federal law has not yet made it unnecessary for Illinois to protect herself against her sister states.

The new law has been of great value in dealing with the extract problem. The Federal standards for vanilla, lemon and orange extracts are written into the Illinois law. The enforcement of these standards has already done much in clearing the market of inferior extracts, but there is still much to be done in regulating the sale of extracts below standard before the people will receive proper protection. Illinois believes she has taken steps which will accomplish the desired results but the end would be attained more speedily if she had the co-operation of this association in the method she employs. Section 2 of Article II of the by-laws of this association gives as one of the objects of this association "To promote uniformity in legislation and rulings relative to dairy and food products." Cannot the association at this time attain this end with reference to rules for labeling extracts below standard strength? Commissioner Jones has ruled that "Extracts below standard shall be labeled '3/8 STANDARD STRENGTH,' etc., as the case may be. Only common fractions shall be used and the statement of strength shall immediately precede the name of the extract." When this rule is followed the purchaser can tell at a glance the flavoring value of the extract as compared with the standard goods. But what does he know of the *relative value* when the label reads "2 grams of beans," "5% beans," "3% oil" unless he happens to know what the standard is? Some manufacturers have attempted to avoid compliance with this ruling by labeling their goods with the word "Flavor" or "Flavoring," etc., instead of the word "Extract." These terms are only devices or devices to evade the requirements of the law. True flavors, flavorings, essences or extracts must be derived from the same source, vanilla from vanilla bean, lemon from lemon

oil, etc. Made from any other source they are imitation or artificial products. Except in strength which the manufacturer has deliberately varied, these are therefore just as much extracts as they are flavors, flavorings or essences, and any of these latter terms may be as truthfully applied to a standard product as the term extract, by following common methods for naming things. If we name it from the method of manufacture, it is an extract. Named from a property of the product it is a flavor. Considered from the standpoint of its effect in other foods it is a flavoring. Its importance for the use intended as compared to the substance from which it is derived, makes it an essence. In fact flavors, flavorings and essences are accepted by the purchaser as extracts. The purchaser is therefore always defrauded when they are not of standard extract strength. These facts were called to the attention of those present at a meeting of commissioners of this section held at St. Paul last September when the following resolution was passed, "Resolved that the terms extract flavor, flavoring, spirits, essence and tincture, as applied to solutions used for flavoring food products are held to be synonymous, but the use of any term in lieu of the word 'extract' is deprecated as applied to flavoring solutions made from an aromatic plant or part of an aromatic plant." Cannot this association take steps at this time to solve this extract problem? Where the Federal authorities stand on this proposition I cannot learn from any printed decisions or regulations. The writer believes it is time for this association to take the lead in this matter. Illinois is attempting to carry out this reform and a case involving the synonymous character of the terms flavor and extract promises to reach the higher courts.

The use of preservatives other than benzoate of soda and sulphurous acid has become comparatively rare. These two preservatives are not declared injurious in the law, but the question of their injurious or unwholesome character is sufficiently in doubt so that President Roosevelt has appointed a special commission to investigate their effect on the human system when used in food. Pending the decision of this commission, it would probably be impossible to prove them injurious to the satisfaction of our courts, and would at the same time place many of our manufacturers at a serious disadvantage in competing with manufacturers of other states. However, inasmuch as these substances are not natural to the food products in which they are used, the rulings of the commissioner require that the name and amount of the preservative be stated on the label so that the public may be informed.

The use of preservatives in milk or cream is absolutely forbidden by law, no matter what that preservative is. This provision of the law is found in Section 16, which prohibits the addition of any "foreign substance" to milk or cream. This department conducted a vigorous campaign against adulterated milk two years ago and found that formaldehyde was being used in milk and cream by many of our milk dealers. The prosecution of these men and the notoriety given them by the public press resulted in a great improvement in the conditions, only one-seventh as many cases of this form of adulteration being found last year. Thus far during the present season no formaldehyde has been found in the milk examined. This improvement in our milk supply is a benefit to the health of our infant population that cannot be measured in dollars and cents. The new Food Law passed by the last

legislature has proved an invaluable aid in suppressing this form of poisonous adulteration. It strikes at the root of the evil, the manufacturer and vendor of the preservative. Section 22 of the law reads as follows:

"SALE OF PRESERVATIVES PROHIBITED.
No person, firm or corporation shall manufacture for sale, advertise, offer or expose for sale, or sell, any mixture or company intended for use as a preservative or other adulterant of milk, cream, butter or cheese, nor shall he manufacture for sale, advertise, offer or expose for sale, or sell, any unwholesome or injurious preservative or any mixture or compound thereof intended as a preservative of any food: **PROVIDED, HOWEVER,** that this section shall not apply to pure salt added to butter and cheese."

This section has resulted in at least one dealer in preservatives going out of business, and by making it a criminal act to sell preservatives has discouraged those who worked on the credulity of some of our farmers with such statements as "absolutely harmless," "cannot be detected," etc.

The attention of the public has also been called to the increased danger of the spread of disease such as typhoid when water is added to milk, and milk dealers who sold either watered or skimmed milk have been vigorously prosecuted.

During the past year the department has waged war against adulterated jellies and jams. The adulterants found other than glucose, artificial color and preservative, were mineral acid, starch and agar-agar.

The mineral acid was phosphoric acid and was present in amounts varying from 0.1% to 1.4%. As is well known, acid cheapens the final product. It causes the juices and sugar to jell more quickly. If acid is not added it is necessary to boil till about a third of its volume has disappeared. This loss of volume represents water which has boiled off. Thus by adding acids the manufacturer not only saves the cost of continued boiling, but can also sell as jelly the water which has not been boiled off. The amount of the product he has for sale is increased a third and the food value has been decreased proportionately. This constitutes a gross form of adulteration when the public are not notified by the label of the character of the goods.

Starch is seldom added to jellies and jams as such. It is generally introduced as apple or apple juice which contains the apple starch. After cooking the apple starch cannot be easily identified as such, due to the swollen and soluble condition of the starch granules. Ripe apples contain little if any starch, and this small amount when heated is more or less converted by the action of any acids present. Apple jellies and apple butters have been examined in this laboratory which contained no trace of starch. This is probably due to the use of ripe apples which contain less starch than unripe ones. Cheap jellies containing apple generally contain starch because they are made from apple peel, that portion of the fruit in which the starch last undergoes destruction in the ripening process. The detection of starch was carried out by the official method with iodine solution. Starch was found in jellies labeled currant, strawberry, cherry, grape jelly, etc. The question naturally rose, is starch a natural constituent of these fruits. Bulletin No. 66 (Revised) U. S. Dept. Agr., P. 104, mentions the presence of starch in apples, green peas, quinces, peaches too green for canning, strawberries up to the time the flush of

ripening appears. Raspberries and grapes in all stages of ripeness showed an absence of starch. Tests in the Illinois laboratory of fruit bought on the market showed no starch in green or ripe peaches, currants, black sweet cherries, red sour cherries, or strawberries. The ripe fruit of the following gave no test for starch, red raspberries, black raspberries, blackberries, red, yellow and purple plums, blueberry and apricot. The heart of a great metropolis is not the ideal place for conducting experiments. These should be conducted where the fruits are growing at various times during the development of the fruit. The commission has nevertheless been very successful in compelling the proper branding of goods containing apple. The practice of selling goods containing apple under the name of some other fruit was very extensive. The starch test was the only method used in the detection of the fraud. The firm stand taken by the commission has resulted in all firms thus far called to hearings on this subject taking active steps to relabel all such goods on the market true to name as required by the new law.

Still another form of adulteration which has been detected and suppressed is the addition of agar-agar to jellies and jams. One part of agar-agar in two hundred parts of water produce a jelly. The possibilities of profit in thus selling water as jelly is certainly worthy of thought. The method used in detecting agar-agar is the official method in which, however, one detail is lacking. The portion of the sediment rich in diatoms sticks to the glass and must be removed by scraping. One large firm was found to be using agar-agar in all their jellies and jams.

The provision of the new law requiring 10% available carbon dioxide gas in baking powder was much needed, less than 2% having been found in samples.

The laws against color in vinegar and oleomargarine are the same as before, and are being prosecuted with vigor. The department has 71 cases in court at the present time for the illegal sale of oleo.

One hundred and twenty-one samples of soft drinks have been examined recently by the department. Fifty-three contained saccharine, six contained salicylic acid and four benzoic acid. The samples were all taken from the manufacturer and it was found that some were using extract of soap bark to produce a more permanent foam. Soap bark, according to the U. S. Dispensatory, owes this property to the saponin in the bark. It further states, "Saponin, as found in commerce, is a powerful poison. Kobert states, however, that pure saponin, $C^{19}H^{62}O^{10}$, is destitute of physiological action, and that the saponin depends for its activity mainly upon quillaiic acid and sapotoxin." It then proceeds with a discussion of the irritant and poisonous property of these constituents of soap bark. Truly in the light of all these facts it is time that the soft drink question received attention. At a hearing granted the pop manufacturers the Cook County Bottlers' protective Association proposed the following standard:

"Unfermented beverages, generally known as soft drinks, such as soda water, pop, ginger ale, root beer, etc., are mixtures of sugar syrup (sucrose sirup), with pure water, with or without carbonic acid gas, flavored with natural flavors, and colored with harmless permissible colors, with or without a harmless foam-producing substance, such as gum arabic, gum tragacanth, gelatin, albumen, etc., and which contain no injurious ingredient of any kind. Only such synthetic or arti-

ficial extracts and flavors may be used, as are enumerated in and may be labeled imitation as per Section No. 12 of the Illinois Food Act."

The matter is now receiving the attention of the commission.

This paper is too short to much more than outline the work of the year. The new law has shown itself to be a good one. It is far better than the old one and its merits far outweigh its demerits.

A "DISPENSARY RESTAURANT."

Professor Thomas J. Allen, who recently lived sixty days on a diet of peanuts, has made arrangements with the proprietor of a Chicago restaurant for the use of his lunch room after closing hours to demonstrate the practicability of his dietetic plans.

"The restaurant man closes his restaurant at 6 o'clock in the evening and doesn't open at all on Sundays, so he has nothing to lose," said the professor. "I rarely eat anything but prunes at night myself, but some of my clients favor bananas and I humor them in that. One or two insist on taking a couple of tablespoonfuls of olive oil as a beverage. The habit is perfectly harmless; in fact, I rather favor it in some cases.

"We will permit our patrons to eat nothing but fruit for breakfast and not too much of it at that. Luncheons will consist of 5 cents' worth of peanuts. If the customer has been accustomed to a very hearty diet he may have a cereal or a piece of wholewheat bread with his peanuts in the beginning. Suppers will consist of prunes or bananas."

"But how can you pay expenses with a menu like that?"

"Very easily. You see, when a customer comes in, instead of asking for the menu he will ask for the chief dietician, which will be myself. I will feel his pulse, make a critical survey of his appearance, find out how he has been in the habit of abusing his stomach, and tell him what he can eat with safety.

"Of course, I will charge for that advice, but with advice and all a man can live at my restaurant for 30 cents a day."

One of Professor Allen's followers is John R. Hanna, proprietor of the largest store in Aurora. He is sixty-five or seventy years of age and he weighs about 100 pounds.

"The only thing Allen and I don't agree on," said the shoe merchant, "is prunes for breakfast. I say oranges sound better and answer the purpose just as well."

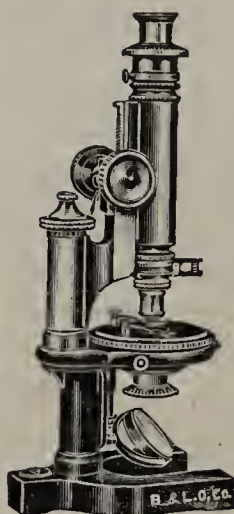
"I'm afraid," said the professor, shaking his head sadly, "that we won't be able to win the youth of this generation. Their appetites are distorted and they like cake and candy. If they only knew it, peanuts are just as palatable as the most highly spiced and indigestible dish."

"Do you eat them raw?"

"Oh, yes! I eat everything raw, the way the Lord made it, and I chew each mouthful of peanuts fifty times. They have not been sufficiently chewed until every particle of taste has gone out of them.

"And will this rule be enforced in the new prescription restaurant?"

"Every mouthful will be supervised with the most scrupulous care," said the professor decidedly.—Modern Grocer.



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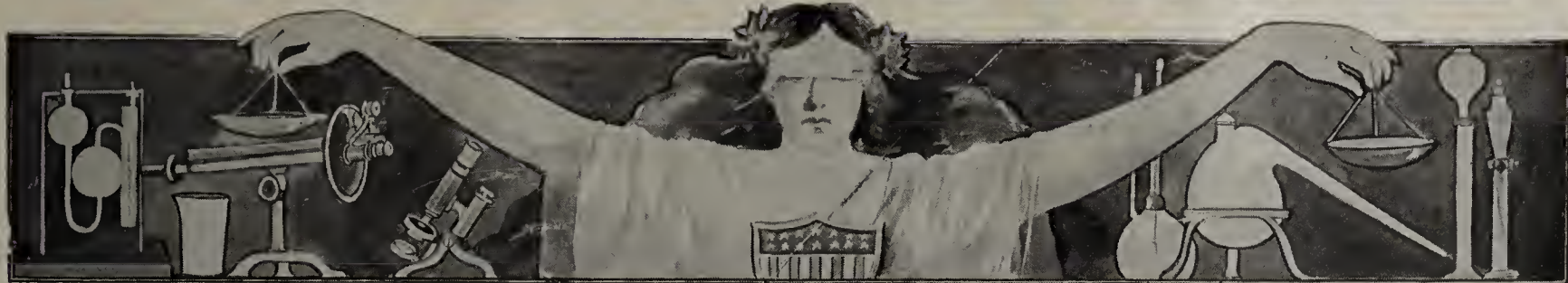
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ADDRESSES DELIVERED

AT THE

Twelfth Annual Convention

OF THE

Association of State and National Food and Dairy Departments

At Mackinac Island, Michigan, August 4th to 7th, 1908

THE REGULATION OF THE MANUFACTURE AND SALE OF FLAVORING EXTRACTS.

BY JULIUS HORTVET, CHIEF CHEMIST, MINNESOTA
DAIRY FOOD DEPARTMENT.

The Pharmacopoeia of the United States has become a recognized standard for drugs in the pure food and drug laws of about twenty states and in the Food and Drugs Act of June 30, 1906. It may, therefore, be pertinent to inquire what the Pharmacopoeia may have to say regarding standards relating to flavoring extracts. In attempting an answer to this question it will be essential first to quote the paragraph at the top of page 39, of the preface to the edition which appeared in 1905. "Inasmuch as there has existed in the past on the part of the public a misconception of the purposes of a pharmacopoeia, and penalties have been imposed upon those who have sold substances bearing pharmacopoeial names which were to be used in the arts for manufacturing and other purposes, and not as medicines, it has become necessary to make the following declaration:

"The standards of purity and strength prescribed in the text of this Pharmacopoeia are intended to apply to substances which are used solely for medicinal purposes and professedly bought, sold or dispensed as such."

It will be found on further examination that the Pharmacopoeia does not recognize such an article as an extract prepared solely for the purpose of flavoring foods. The medicinal uses of so-called "extracts," "spirits" and "tinctures" are the chief and only con-

siderations. Extracts having for their sole purpose the flavoring of food products receive no more recognition as such than do preparations designed expressly



JULIUS HORTVET.

for use as perfumery or cosmetics. Furthermore, so far as I am able to discover, the word "flavor" does not occur in the Pharmacopoeia. While not expressly

so defined, the various Pharmacopoeial preparations known as extracts, spirits and tinctures appear to conform in general with the following definition:

An extract is a decoction, solution or infusion made by drawing out from any substance that which gives it its essential and characteristic virtues. A fluid extract is a concentrated liquid preparation containing a definite proportion of the active principles of a medicinal substance.

A spirit of essence is a solution in alcohol of a volatile principle or volatile oil.

A tincture is a solution (commonly colored) of a medicinal substance in alcohol, usually more or less diluted.

In the Standards of Purity for Food Products, Circular No. 19, of the United States Department of Agriculture, a flavoring extract is defined as "a solution in ethyl alcohol of proper strength of the sapid and odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring matter, and conforms in name to the plant used in its preparation." In a foot-note it is explained that "the flavoring extracts herein described are intended solely for food purposes, and are not to be confounded with similar preparations described in the Pharmacopoeia for medicinal purposes."

Thus we have at the outset a wide divergence on account of general purposes and definitions. Let us see how matters stand regarding the class of products which has been assigned to me to discuss. Of the twenty-three extracts defined in Circular No. 19, twelve are not mentioned either in the Pharmacopoeia of 1890, or in the last edition which appeared in 1905. So-called spirits of lemon, nutmeg and orange, which were given recognition in the 1890 edition, are dismissed from the one of three years ago. There are now recognized only spirits of anise, almond, cinnamon, peppermint and wintergreen; and in only one instance, in the case of almond extract, does the standard of strength compare with that given in Circular No. 19. The spirit of bitter almond of the U. S. P. is a 1 per cent solution, by volume, of the oil in about 80 per cent alcohol, while in the other cases mentioned a 10 per cent solution is required. The Pharmacopoeia, however, does not specify that the almond oil used should be perfectly free from hydrocyanic acid. The U. S. P. tincture of ginger and vanilla correspond respectively with the extracts of ginger and vanilla defined in our food standards. Spirit of wintergreen, according to the last edition of the Pharmacopoeia, is a 5 per cent solution of the oil, while our food standards require only 3 per cent.

Hence it appears in practice as well as in the nature of the case the standards laid down in the Pharmacopoeia and the standards defined in U. S. Department of Agriculture, Circular No. 19, do not follow parallel lines. On the one hand we have standards promulgated by a national committee composed of pharmacognosists, botanists, chemists, therapeutists and pharmacists elected by delegates from medical and pharmaceutical organizations, and the medical departments of the different branches of the federal government; on the other hand are the standards decided upon by experts consisting of food chemists representing the Association of Official Agricultural Chemists and the Association of State and National Food and Dairy Departments. These two large groups of individuals represent, to a great extent, widely different though not

conflicting interests. They recognize that an article which may be used in the compounding of prescriptions should be regarded as distinct from a product intended chiefly for flavoring foods, and it is a sound policy that such a distinction should be maintained. We have no quarrel with the editors of the U. S. Pharmacopoeia; their standards can in no way conflict with the standards for food products, and we do not regret that there are not more points of agreement. These two sets of standards can best sustain each other by being each in its own province self-sustaining, and, so far at least as we are concerned, there is no lack of approval of the U. S. P. standards for drugs and medicinal preparations as they now exist.

The pure food and drug laws of ten states and the National Food and Drugs Act recognize the National Formulary on the same basis as the U. S. Pharmacopoeia. The Formulary is a work issued by the American Pharmaceutical Association, and is compiled by a committee appointed by that Association. It is a compilation of some 500 formulas for such preparations as may not for some reason have been given a place in the Pharmacopoeia or have not been deemed worthy of a place in the more elaborate work. It is claimed to include most of the modern preparations, not given in the U. S. P., which pharmacists and physicians find it necessary to employ. While it is not expressly so declared, we are at least left to infer that this work is meant to include preparations intended for medicinal uses only and not in any instance preparations intended for foods or industrial uses. Let us see what is the position of the Formulary as regards standards for products allied to flavoring extracts. On page 145 of the work is given the following general formula for a so-called Spirit of a Volatile Oil.

"Any spirit or alcoholic solution of a volatile oil for which no formula is given by the U. S. P. or by this Formulary, should be prepared in accordance with the following general formula:

"Any volatile oil.....65 cc.

"Deodorized alcohol.....935 cc.

"Dissolve the volatile oil in the deodorized alcohol."

In a foot-note it is stated that "the strength of the spirit thus prepared is approximately 5 per cent by weight, provided the specific gravity of the oil is in the neighborhood of 0.900."

Spirit of Orange, Spirit of Lemon and Spirit of Nutmeg, given on pages 227 and 228, correspond with the U. S. P. preparations of 1890, and are each a 5 per cent, by volume, solution of the oil in strong alcohol. All of the above preparations are well within the requirements of our food standards, in fact, all excepting these three are of greater strength than our food standards require. In the light of our present decisions regarding the naming and labeling of flavoring extracts it is interesting to note the National Formulary "Compound Tincture of Vanillin."

Vanillin.....6.5 grams

Cumarin.....0.4 grams

Alcohol.....200 cc.

Glycerin.....125 cc.

Syrup (U. S. P.).....125 cc.

Compound tincture of cudbear.....16 cc

Water, a sufficient quantity to make.....1,000 cc

This preparation has a general resemblance to the product which several of our states now require to be labeled "Vanillin and Coumarin Flavor" and without the presence of coloring matter. The same require-

ment is included in Food Inspection Decision No. 47 of the U. S. Department of Agriculture. The so-called Compound Tincture of Cudbear used for coloring the tincture of Vanillin is composed of:

Cudbear 16.5 grams
Caramel 100 grams
Alcohol and water to make 1,000 cc.

The sugar and glycerine named in the Formulary preparations are not usually included in the extracts sold for food flavoring purposes only. A comparison of the different standards shows that the spirits and tinctures of the Pharmacopoeia and of the National Formulary are closely allied to the flavoring extracts only in a few isolated cases. The standards laid down in Circular No. 19 are in only two instances, in the case of ginger and vanilla extracts, identical with those recognized in the Pharmacopoeia, while in the Formulary the only point of close resemblance occurs in the so-called tinctures of lemon, orange and nutmeg. A 6.5 per cent, by volume, solution of most of the other volatile oils would, in our judgment, be deemed impractical for flavoring extracts.

Strictly speaking, then, the pharmacist has nothing to do with extracts intended to be used for flavoring foods; neither should the food manufacturer or the groceryman concern himself with U. S. P. or N. F. preparations. The area of separation between these two classes of products is clear and wide. The manufacture of extracts for flavoring food products does not come within the province of the Pharmacist, neither does the preparing and compounding of Pharmacopoeial or National Formulary preparations come within the province of the food manufacturer. Under our state and national pure drug laws all spirits and tinctures made and sold by druggists should conform with the U. S. P. or N. F. requirements, and should bear proper distinguishing marks on their labels. Under our state and national pure food laws all flavoring extracts sold for food flavoring purposes should be made in conformity with legal food standards, and should be labeled in accordance with legal requirements. In the Delaware General Food Law occurs the following unique provision applying to cases of this kind: "When a substance answers both descriptions, a 'food' and a 'drug' as above defined, the purpose for which it was manufactured, dispensed, sold or offered for sale, as the case may be, shall determine its character." Extracts made in accordance with the N. F. general formula for a Spirit of a Volatile Oil conform easily with our food laws, and if a pharmacist chooses to sell such or other extracts for food flavoring purposes, he may do so providing in the matter of labeling he complies with the regulations of his state or with the U. S. regulations for flavoring extracts. And if a groceryman or other dispenser of foods or drinks chooses to handle the U. S. P. or N. F. preparations, he had better consult the laws regulating dealers in pharmaceuticals and drugs. It is, however, the peculiar function of the pharmacist to prepare and dispense drugs and prescriptions. Likewise, the sale of flavoring extracts is as much a legitimate function of the groceryman as is the sale of spices and condiments. Neither line of activity should interfere with the other. There is no imperative necessity that the extract manufacturer be a trained pharmacist, although even a slight knowledge of pharmacy might be useful. It has been contended that the making of these products involves difficulties which

are beyond the ability and experience of the food manufacturer, and that some extracts, especially extract of almond, are not safe articles in the hands of anybody but a qualified pharmacist; also that the only proper place for the disposal of such products is a pharmacy and not a general store. It is true that oil of bitter almonds in its unpurified state contains hydrocyanic acid; but it is also true that the Pharmacopoeia does not specify that the almond oil used in making spirits of almond shall be perfectly free from hydrocyanic acid, in spite of the fact that the highly poisonous nature of this acid is well known, and that it exists in the crude oil to the extent of from 4 to 6 per cent. It is admitted that but little of the poisonous substance is found in the extract, but in these days when the presence in food of such substances as antiseptics and coal-tar coloring matters is regarded as questionable, there should be little hesitancy in pronouncing the presence of prussic acid objectionable, especially when a pure almond oil is readily obtainable. If it is contended that the extract manufacturer is lacking in the ability to test his oils for purity, the question may well be asked: How many pharmacists in any given state either know how or even care to take the trouble to make a chemical examination of an essential oil or alcohol or other material before preparing their spirits or essences? Furthermore, the groceryman, as well as the druggist, is at liberty to employ a chemist whenever he chooses. In view, however, of the fact that the Pharmacopoeia expressly states that its preparations are for "medicinal uses only," while our food standards for flavoring extracts "are intended solely for food purposes," there can be no ground for serious controversy in this connection.

Failure to comply with standards or to live up to ethical principles is not confined to manufacturers and dealers in food products. The various state reports do not appear to exempt the druggist from a large share of responsibility for the frauds which have been practiced in the sale of flavoring extracts, and the case becomes all the more serious when it is recalled that the standards for food flavorings are not, with only a few exceptions, as high as those required by the standards which the pharmacist is supposed to hold in high esteem. On pages 146 and 147 of the Report of the Connecticut Agricultural Experiment Station on Food Products, for 1907, we find tabulated analyses of 21 samples of "Adulterated Lemon Extracts." Of these 21 samples, 25 were "sold in druggist's vial" or were obtained from pharmacists. These latter contained lemon oil ranging from 0.00, 0.40 and 0.70 to about 3.50 per cent, while three were artificially colored. Out of 33 samples of flavoring extracts obtained from pharmacists and analyzed in the laboratory of the Minnesota Dairy and Food Department during the past year, 23 were reported illegal. Eight lemon extracts out of 12 were illegal for various reasons, chief of which were deficiency in oil of lemon or the presence of coal-tar coloring matter. Ten of the 12 vanilla extracts examined were from one-third to one-half the standard strength. Out of 9 miscellaneous extracts, 5 were declared illegal on account of deficiency in essential oil or on account of the presence of coal-tar dye. Three samples of "peppermint essence" prepared by registered pharmacists contained oil of peppermint ranging from a mere trace to 0.5 per cent, and contained in the neigh-

borhood of 45 per cent of alcohol. The Pharmacopoeia standard requires a 10 per cent extract in strong alcohol, while the pure food standard requires only 3 per cent. All of these pharmacists' essences were "guaranteed to comply with the U. S. Pure Food and Drug Laws." One of them bore on its label the Dispensatory directions as to dose, viz.: "5 to 30 minims on sugar or in sweetened water"—an illustration of a kind of suggestion therapeutics which is not seldom paralleled in preparations of this class. A few straws only are sufficient to indicate the way of the wind, and may we not conclude that it is time to look more attentively in the direction of the drug store for flagrant violations not only of our drug laws but of some of our food regulations as well. A couple of quotations from the Eighteenth Annual Report of the North Dakota Agricultural Experiment Station, page 121, will add significance to what I have already pointed out:

"A considerable number of the U. S. P. preparations have been collected from various parts of the state and analyzed, showing at times a deplorable lack of proper pharmaceutical training on the part of the druggists or their help, or both." Right here, as a possible excuse for such a condition, I might add, the inspector was instructed to inquire in each drug store with the idea of getting some estimate of the per cent of those having the U. S. P., and out of 190 inquiries, only 124 had the latest edition. That is to say, out of every 100 druggists consulted, only about 65 had the last edition of the Pharmacopoeia, in spite of the fact that this edition has been in existence over three years.

The most effective methods of enforcing the standards for flavoring extracts have been educational. Ignorance regarding a few general principles has been as much responsible for non-compliance with our food laws as simple cupidity. We would naturally expect that in attempting to make a standard extract, the manufacturer will, in the interest of economy, reduce to the greatest extent possible, the strength of the alcohol. This would, of course, be very well, providing that by weakening the alcohol, a portion, if not all of the oil, were not precipitated out of the solution. The next serious mistake has been the almost universal practice of filtering through magnesia, in consequence of which the oil has been more completely removed than it could be by simple addition of water. It appears also to have been generally assumed that because our standards for extract of rose and so-called "extract of terpeness lemon," required respectively only 0.4 per cent of oil of rose and 0.2 per cent of citral, it would be possible to get along with very small percentages of alcohol. But, as a matter of fact, in order to make a standard extract of rose, the actual alcoholic strength of the solution should not be less than 85 per cent, and in order to make an 0.2 per cent solution of citral, not less than a 53 per cent alcohol should be employed. On the other hand, experience has shown that there has been much extravagance in the use of alcohol. This is especially the case in making extract of almond. It will be noticed that the U. S. P. Spirit of Bitter Almond is a solution of 1 per cent of oil, in what would amount to a little above 75 per cent alcohol. This strength of alcohol is approximately three times that actually required to make a clear solution of oil of almond at ordinary room temperature. Oil of orange requires a somewhat

stronger alcohol, about 90 per cent, than oil of lemon; and in making standard extracts of cinnamon, cloves, nutmeg, peppermint and wintergreen, the alcoholic percentages should not be less than 65, 62, 76, 80 and 57 per cent respectively. It should be borne in mind that a little more than the actually required amount of alcohol should be used in order to hold the oil permanently in solution, otherwise changes in temperature may cause precipitation.

We have made great advances during the past two years in our views regarding the labeling of flavoring extracts. Our investigations and conferences among ourselves and with manufacturers have resulted finally in crystallizing into something like definite and permanent form certain vital principles and rules. At the conference of food commissioners and chemists of six northwestern states held in St. Paul last September, some resolutions were adopted which represent the present status of our decisions. Among the most important was the one relating to the artificial extracts, such as pineapple, banana, pear and strawberry. These so-called "extracts" made from such compounds as butyric ether, amyl acetate, nitrous ether, acetic ether and methyl salicylate, have for many years been sold as natural extracts, and have, as a rule, been highly colored.

Now it is decreed that such products must be labeled "imitation," must be uncolored and must bear the true name and address of the manufacturer. Of about equal importance was also the agreement that such terms as extract, flavor, flavoring, spirits, essence and tincture, as applied to solutions to be used for flavoring foods, are synonymous. While it is recognized that these terms may have technically different meanings when considered in connection with products not intended for flavoring foods, the fact remains that all depend on certain flavoring principles of plants, and are to all intents and purposes alike, hence should comply with the regulations for flavoring extracts. A third agreement was that such terms as "double" and "triple," as applied to flavoring extracts, are held to mean respectively two and three times the strength required by the minimum standards given in Circular No. 19, and that such a description as "concentrated" is false and misleading.

Possibly the last citadel of fraud will be taken when we have succeeded in abolishing the double-concavo-convex extract bottle. This style of bottle, especially the so-called 10-cent size, appears to be the favorite among manufacturers of cheap extracts, hence on account of business considerations may have become a favorite among glass-blowers. In view of the fact that manufacturers, or shall we say their extracts, are not of necessity restricted to a style of bottle that is so apt to have its inner surfaces almost in actual contact one may rightfully question the assertion that it is not possible to blow bottles to an ample uniform capacity. Other forms of bottles might be advised or even demanded in order that the consumer may be less frequently defrauded. The requirement that each bottle contain the exact net weight or measure represented on its label has done much to set matters right; but this does not appear to be sufficient, in view of the fact that unless the net weight or measure be given, there is nothing to prevent the continued sale of short-weight or short-measure articles. Under present conditions, a 10-cent extract may mean anything from half an ounce to two ounces—whatever, in fact, the manufac-

turer chooses to make it. As a means, therefore, not only of regulating competition, but of more effectively enforcing our food laws, it may be urged that unremitting attention be given to this important, though, perhaps, least interesting side of the question of regulating the manufacture and sale of flavoring extracts.

THE INSPECTION OF NATURAL PRODUCTS.

BY R. E. DOOLITTLE, CHIEF U. S. LABORATORY, NEW YORK CITY.

It would seem from the subjects which have been discussed in meetings of this kind and from the list of products given in the reports of the various officials charged with the enforcement of food and drug laws, that only the manufactured articles are covered by the laws controlling the sale of food and drug products. There are, however, a very great number of



R. E. DOOLITTLE.

natural products, some of which are produced in this country, and more perhaps which are imported from abroad, that come within the provisions of the food and drugs law and the sale of which should be as carefully looked after by the various officials charged with the enforcement of these laws as are the manufactured products. We have only to enumerate the products daily consumed in our own homes to fully appreciate this. The enactment of the National Food and Drugs Act, covering as it does not only domestic products when entered into interstate commerce but also products brought into this country from abroad, has shown the officials charged with the enforcement of the law the necessity of a thorough and careful inspection of this class of products. I need only to mention the various spices, such as pepper, nutmegs, allspice, cinnamon and cassia, which are brought into this country in the whole state, the coffees, the teas, the various crude drugs, and the fruits and vegetables, to show the amount of this class of products that require inspection control under the Act. Many of the members of this association, who have had to do with the fixing

of standards for spices and the enforcement of laws containing standards for this class of products, know that there has heretofore been grades in general commerce and recognized by the trade that would not comply with these standards. This has been true particularly of the low grade products, such as "D" and "E" Achene pepper. But this is not confined to pepper alone. The same appears to be true of practically all the spices. The ground nutmeg found on our market, which, by the way, complies with the standards most commonly given for that article, has heretofore been the product of so-called "Grinding Nutmegs," which are nothing more than the refuse from the grading process, the worm-eaten, mouldy, immature, and broken nutmegs unsalable in any other form. I have also been told by persons in the trade that the Chinamen make a practice of adding sand to the cassia rolls in packing of the same for export.

The importation of tea into this country is controlled by a special act of Congress, enforced by the Treasury Department. By this act standards are fixed each year by a committee appointed by the Secretary of the Treasury and all tea presented for entry must comply with these standards. By a ruling of the United States Attorney General this act does not exempt the tea, however, from inspection under the provisions of the Food and Drugs Act, and the two departments co-operate in the inspection of this product.

The inspection of coffee is not provided for by any special act of Congress, and, therefore, the control of the importations come entirely under the Food and Drugs Act. The fact that within the last few days an importation of coffee, which had been soaked or exhausted to remove the caffeine, and another which was composed largely of refuse matter, such as sticks, stones, dirt, blighted berries, etc., were presented for entry shows the necessity for the inspection of this article. I am told that these low grade coffees containing as they do a high percentage of immature and blighted berries are often sold to the manufacturers of the glazed coffees of trade.

Fortunately, the inspection of crude drugs is provided for not only by the National Food and Drugs Act but also by a special act enforced by the Treasury Department, and a co-operative system of inspection has been arranged between the Department of Agriculture and the Department of Treasury at practically all ports of entry, whereby this class of products is very closely looked after, and it is well that it is so. No one not familiar with the adulteration of drugs and drug products can appreciate the extent of adulteration practiced, and of all products certainly this class which enters into the preparation of medicinal agents should not only be free from adulteration but should also be of the recognized standard of purity fixed for that article. On the contrary, our drugs are now where the foods were when the agitation of foods began ten or twelve years ago and the commissioners met for the first time in this state and formed the Association of State Dairy and Food Departments. But I need not dwell on this subject for there are speakers on the program more able to discuss the adulteration of drugs than I.

Returning to the general subject of the inspection of natural products, I wish to add that the enforcement of the law with reference to these products presents many difficulties. In the first place, nearly all these products, such as spices, crude drugs, etc., are gath-

ered by ignorant native people in the interior of countries where white man has never trod. These people are not only outside of the reach of our laws but are of such a low grade of intelligence that it seems impossible to make them understand the requirements of any laws whatsoever. The products are shipped to this country for the most part as gathered and like many of our own natural products, must be graded before being placed on the market. What then shall be required in the inspection of these products? The manufacturing process in many instances consists simply in reducing the article to a ground condition, and in such condition they are then subject to inspection not only under the National law but also under the laws of the various states into which the products may be shipped, and it is necessary that a form of inspection be devised that will not conflict in any of these respects, and I may add further that to me it appears no more than right that the importer and grinder should know just what grade of products will be admitted and which when reduced to the ground state will be permitted sale under the provisions of the food laws. The inspection of natural products, therefore, in my opinion, resolves itself into fixing a standard of quality for each article that is permissible under the provisions of the law governing such articles. This, of course, necessitates a careful study of the various articles in question to determine their fitness or unfitness for use as articles of food or drugs and to fix proper standards of purity. In these matters the officials should have the co-operation of the manufacturers and importers, which I believe they can have, to the end that not only will the health of the consumers be protected, as is the purpose of all food laws, but the importers and manufacturers will also be protected as is their due.

Before leaving the subject of the inspection of natural products I wish to say a word on the sanitary side of the inspection of natural products. I believe that the inspection of vegetables and fruits should be more stringent. In my opinion the exposure of fruits and vegetables in the open windows, carts, on the sidewalks and fronts of our shops, where they receive the dust and dirt of the street, is an abominable practice which should be strictly prohibited by laws which are strictly enforced. These are matters which must in general be looked after by the municipal authorities. There are many matters, however, that do come under the provisions of our laws as they now exist. The sale of storage eggs for strictly fresh eggs is a violation of food laws as generally interpreted. The sale of decomposed and putrid fruit and vegetables are always provided for in the food and drug laws and I saw recently where the attorney general of the State of Kansas has rendered the opinion that the sale of potatoes containing an excessive amount of dirt was a violation of the food law of that state. There is no question but what he is right in his decision. The substitution of dirt for potatoes is just as much a violation of the food law as is the substitution of sand for pepper even if it does come from the soil in which these products grow. The inspection of these natural products, which form so large a percentage of our daily food, is therefore of greatest importance. The diligence of the officials charged with the enforcement of food laws in looking after the manufactured products in the past is to be commended, for there the real intent of deception and fraud is most apparent, but the time is at hand

when the production and handling of the natural product should be inquired into and care taken to see that they are transferred to the consumer in a condition that is not prejudicial to his health, and that their quality is that ordinarily attributed to its kind.

USES OF COLOR IN IMITATION CIDER VINEGAR.

BY DR. D. J. CRUMBINE, KANSAS FOOD INSPECTOR.

By long-continued use, the consuming public has been brought to think and believe that the only genuine and wholesome vinegar is that fermented from the juice of apples, and known as apple or cider vinegar. This vinegar is of a brownish yellow color, which color is so characteristic as to be the principal and often the only means of its identification by the average consumer—thus any other vinegar that carries a color in appearance to that of cider vinegar is purchased by the vast majority of people without question, in the belief that it is indeed cider vinegar. This condition has at once invited many manufacturers to place upon the market a vinegar colored in imitation of cider vinegar, by the addition of caramel coloring, added either before or after the manufacture, or by the selection of such materials as would impart the desired color to the finished product. In either case, the intention seems to be to imitate cider vinegar, and thus permit the retail dealer to deceive the purchaser, all of which is contrary to the spirit, if not the letter, of the national and state food and drugs laws.

It is admitted that the principal offender is the retailer, who sells such products as cider vinegar. Nevertheless, the manufacturer is accessory to the fact, and must stand at least morally responsible in furnishing a product to such dealers, with the absolute knowledge and assent of such deception, regardless of the fact that the provision of the law as to proper branding may have been fulfilled.

It is not assumed that vinegar may not be made of any material which will produce a pure and wholesome product, but it is asserted that a selection or processing of any material for the express purpose of making a product that will carry a color in imitation of cider vinegar should be considered to be, and classed with, such products as have added color, and labeled and branded accordingly.

Regulation 21, paragraph e, of the National Food and Drugs Act, declares that "a color or flavor can not be employed to imitate any natural product, or any other product of recognized name and quality." This regulation would seem to exclude the use of added color in vinegar, yet I am not aware that this regulation so far as it applies to vinegars, or any other food products, has been enforced, all of which makes it exceedingly difficult, if not well nigh impossible, to enforce in the states where the state and federal laws are alike, without a specific statutory enactment.

The Kansas State Board of Health, realizing this difficulty and believing also, that the retailer was the principal offender, decided to place the burden of giving the purchaser the required information under the law, upon the shoulders of the retailer, and accordingly the following rule was adopted:

"By the standards promulgated by the secretary of the United States Department of Agriculture, and by the Kansas State Board of Health, the term 'vinegar' when used without qualification is held to mean cider vinegar, and the sale of any other kind under that name is misbranding.

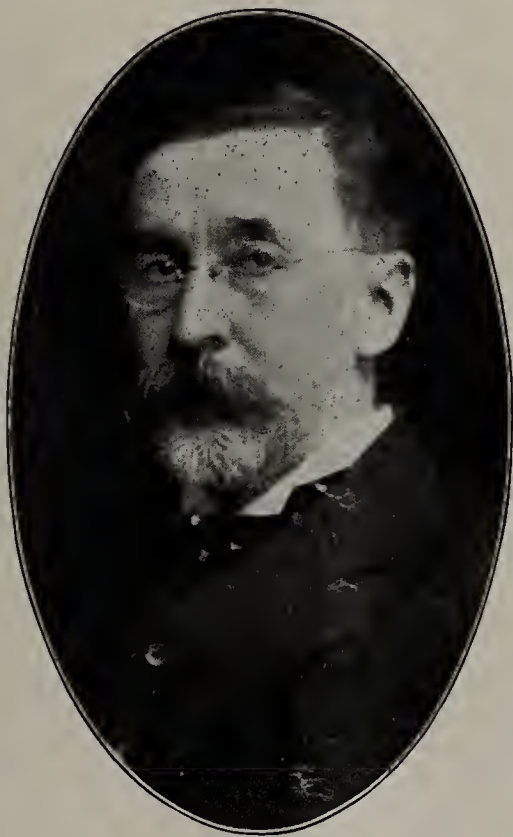
"Vinegars artificially colored or made from materials specially chosen to impart a color similar to that of cider vinegar are held to be imitations of cider vinegar unless each package, wholesale and retail, as delivered to the purchaser, is distinctly marked by a label which states the true nature of the article."

It is not intended to discuss the relative purity or wholesomeness of vinegar. Suffice it to say that these various kinds of products should be sold on their own merits, and in their natural colors, and once the consuming public becomes aware that there are other wholesome vinegars besides that of cider vinegar, and becomes acquainted with the distinctive color of such product, deceptive methods will give way to that of fair competition, and a personal choice by the consumer, based on quality, flavor and price.

VINEGAR STANDARDS.

BY PROF. E. H. S. BAILEY, STATE FOOD CHEMIST OF KANSAS.

In the attempt to regulate the sale of vinegars so as to protect the consumer and at the same time not to discriminate in favor of one class of vinegar manufacturers as against another, those interested in the enforcement of the food laws certainly have a troublesome proposition. On the one side are the legitimate



PROF. E. H. S. BAILEY.

cider vinegar manufacturers, who claim that those who color distilled vinegar and put it on the market as "vinegar" simply are ruining their business. On the other side are the distilled vinegar makers, who claim that fermented vinegars, made from cheap materials, are underselling their products, and so on account of the prejudice of the people for colored vinegar, they ought to be allowed to color their distilled vinegar artificially in imitation of cider vinegar or cheap fermented vinegars.

After all, you say, what have food departments to do with these controversies which are strictly commercial? Only this—and it is of importance—these claims of rival manufacturers show in what directions will come evasions of the law, and where the shoe pinches them. With these products, then, the consumer, is likely to be deceived.

We recognize the U. S. standards, and therefore classify vinegars as: 1, vinegar, cider vinegar, apple vinegar; 2, wine vinegar or grape vinegar; 3, malt vinegar; 4, sugar vinegar; 5, glucose vinegar, spirit vinegar, distilled vinegar, grain vinegar.

This is comparatively simple if these vinegars are true to name, but how about mixtures of these varieties? How about a vinegar made from apple pulp with enough of the required ingredients to fulfill the standards, and fortified with distilled vinegar? What about a vinegar from boiled cider or evaporated apple pulp? Perhaps more perplexing than these is the question, "How about a glucose vinegar made from a caramelized glucose, No. 80 as it is called, so dark that the fermented products will have the color of cider vinegar?" Or a sugar vinegar made from raw sugar or sugar house refuse purposely chosen because it was cheap and would furnish the desired color without "added" color? These are some of the questions which will not down when we come to the practical enforcement of the laws.

It is obviously impracticable to prohibit the sale of a vinegar that is a wholesome product, and which can be furnished to the consumer at a less price than cider vinegar, and we have not the advantage of a law taxing artificially colored vinegar, even if it were desirable, as have the butter makers with reference to oleomargarine.

Evidently the standards adopted must be rigidly adhered to. If any changes are made by state enactment to make the standards more comprehensive, especially in the handling of glucose and sugar vinegars, these changes should be made at once.

It is probably within the sphere of state legislatures to adopt such laws as shall protect the consumer from fraud. It is hoped that these bodies will be able to legislate in such a way as to rule out of the market all "compound" vinegars. It is in the manufacture of these, even if they are labeled accurately as to what they contain, that there is the greatest opportunity for fraud. They will imitate in color and taste an article of a better grade, and be sold as "just as good" and cheaper than the genuine product. It is advisable in some states where the local laws must be so interpreted, for the present at least, to require all imitations of cider vinegar, and this includes the colored vinegars mentioned above, to be labeled so that the purchaser, wholesale or retail, shall be informed of the true character of the goods.

It is possible that the public will become educated so as to recognize that a colorless vinegar is not necessarily a poor vinegar, and a colored vinegar is not always a cider vinegar, but it will take time to bring about that result. In the meantime it seems to be within the province of those who are assisting in the enforcement of the laws, to keep vinegars up to the standards and insist that the labels shall at least tell the truth. Can we do more as the laws are at present enacted and interpreted?

THE USE OF BLEACHED FLOUR.

BY W. C. ELLIS, ST. LOUIS, MO.

I have never intended to speak, or write, against the use of bleached flour in a serious or well-considered way, but I am committed earnestly to the purpose of the utmost possible publicity and test of the subject in order that the truth may be reached.

My object is to make as clear as possible to you and your association the idea which is in my mind that the responsibility rests upon your skilled investigation to determine whether the process of bleaching flour by nitrous peroxide to make it more attractive is a legitimate one and free from danger to the public and conflict with the provision of the national law forbidding the artificial coloring of food products to conceal inferiority.

The process is widely advertised as a commercial success. The patent right to use the process commands a large price. Some reputable millers claim that they make nothing beyond the increased acceptability of their flour to the trade, resulting in readier sale. Privately, I have been told that the failure of my firm to avail itself of the bleaching process has cost us immense sums in possible profits. Besides this, careful and conscientious authorities have argued that the bleaching process enables the miller to make use of certain portions of the wheat berry which would not otherwise be salable at high prices.

One State Food Commissioner of high repute finds that bleached flour as found in his market contains a proportion of nitrites or nitrates that is injurious to health. The highest authority in the United States has recently been reported as stating that the bleaching of flour injures the wholesomeness of bread.

One State Commissioner, whose pamphlet is the most exhaustive in the way of popular information, capable of being understood by the trade—finds that while the gas which is used to bleach flour corrodes most metals, is very poisonous when inhaled, and will stain the skin yellow like nitric acid or diluted form of this chemical, is still harmless when used to remove, change or destroy the yellow color of the flour made from the wheat in his state.

There is no miller of high standing, or of any standing whatever in the United States, who would not instantaneously abandon the effort to improve the appearance of his flour by nitrogen peroxide if it were once determined by final authority to be injurious to the public health. There is no class of food manufacturers who have a higher sense of their obligation to the public, or who have maintained a more worthy and dignified position in the manufacture of food products than the millers and flour dealers of the United States. They find that the bleaching of flour artificially by nitrous peroxide is a distinct commercial advantage; it is due simply to the investigation of State and National Food Commissions that any suspicion has been cast upon the product. It devolves upon your association to determine and terminate quickly the question whether the mixture of this gas with pure food products, without any possibility of subsequent neutralization of the gas, and the poisonous mixture, is really injurious to the public health.

So far as the commercial view is concerned, the general public is helpless. Millers may bleach and millers may condemn bleaching, but the bleaching will go on forever, until competent, expert authority settles the doubt now felt regarding the safety of the device.

The only public expression that it has been possible to obtain has been from the National Association of Master Bakers at Chicago on the 12th of September, 1907, and after the discussion of the whole question they resolved that their association "respectfully requests" millers to brand sacks containing bleached flour with the word "Bleached."

Up to the present time we are not aware that the millers who use the nitrous peroxide process have ever complied with this request, or show any present disposition to do so; apparently it is a secret process avoiding publicity.

There is to be a convention of the master bakers at Indianapolis early in September of this year, and we are informed that they are likely to repeat this request in the form of a demand.

It rests upon you, gentlemen, as officials of your several states, charged with the technical and scientific investigation of the subject, to terminate positively and quickly the doubt which is in the minds of the Master Bakers' Association and of many millers in the United States who hesitate to use nitrous peroxide to produce an appearance of age and high quality in flour which would not otherwise show this superior market value.

You should determine whether the fictitious age which bleaching produces is actual age.

You should also determine whether the coloring by nitrous peroxide produced in those portions of the wheat grain which the customer or consumer would not otherwise buy is a coloring to conceal inferiority.

The matter is in your hands, and the interests of large commercial enterprises are waiting upon a certain and well-founded, well-considered and scientific settlement of the question.

Above all, the utmost publicity is due the consuming part of the citizens of each of your states in all of your deliberations.

The bakers have declared themselves publicly as requesting all artificially bleached flour to be so marked; they did not ask this for the purpose of selecting bleached flour and paying a high price for it; they did it to guard against defects in their own judgment and to guide them, perhaps, in the selection of flour that shows superiority without chemical sophistication.

The general public is not posted on the subject, and does not know that the snow-white flour which is offered them is chemically changed from yellow products of wheat that cost much less in the market than the high creamy-colored flour to which they were formerly accustomed.

It is part of your duty as state officials to ascertain whether this artificial coloring and beautifying of flour by the destruction or change of the natural constituents of the wheat is harmful or not. The day will come, and is in fact now present, when the Food Commissioners of every state and of the nation will be looked up to as the people's guide in all such matters.

You are experts appointed no less for the millers than for the people, and you cannot serve the millers any more faithfully than by ascertaining quickly and decisively whether the admixture of nitrous peroxide with pure wheat products is a health food, remembering always that you know of no device and no miller pretends to have exercised any means of separating the nitrous peroxide from the flour after it has entered into combination with the essential oil or fat, or coloring matter.

We respectfully ask the widest possible publication of all your discussion, so that the public may know that some expert Food Commissioners find harmful traces of nitrous peroxide in flour and bread that has been subjected to the bleaching process, and that some other Food Commissioners who represent a state where the wheat is naturally yellow have not been able to find traces of this chemical in flours furnished exclusively

by the mills who practice the system.

The object of this paper is to obtain publicity for the whole subject, and let the consumers express either some preference for unbleached flour, or for flour that has been chemically treated, and to urge upon you the importance and obligation that is upon you of determining in your association and by your expert methods whether bleached flour is harmful or not, for the settlement of the uncertainty which now rests upon the milling fraternity.

A great many millers who are now availing themselves of the bleaching process have expressed themselves privately as regretful that it ever was adopted by the trade; they see no necessity for it, and would be glad to see it abolished, but this depends upon the solution of the question whether it is a legitimate process or not.

W. C. ELLIS.

HOW TO FEED THE STARVING CHILDREN.

BY MISS LUCY F. DOGGETT, ASSISTANT ILLINOIS STATE ANALYST.

We spend the money from various license fees for many purposes, sometimes helping to pave our streets which woefully need the improvement, on the policing of our streets and rough city districts, at other times in making a city beautiful. Why not spend a part of revenue from hundreds of saloon licenses in the chan-



nel in which it has worked enormous harm? I speak of the family of the drunkard. Why not give his family wholesale food from part of these funds which are coming into the coffers of the city?

The home of the drunkard and the habitual drinker is generally poverty stricken and contains little of the necessary and beautiful of life to make it worth the name. Our settlement houses are doing a great work

in this line in that they take these unfortunates from these holes of degradation for several hours daily, but nothing hitherto has sufficiently and effectively supplied the want of which I am to speak. The wife and children, the direct sufferers from the havoc wrought by the liquor habit, often go hungry all day. The child starting to school is without breakfast. Chicago has 5,000 children who go breakfastless to school every day and 15,000 who are hungry all day. Hence it is easy to see that the avenues from which the child life receives are extremely meager, no wonder our cities swarm with criminals!

Why not pass an ordinance to the effect that a part of the money from the licenses of our city saloons be put in a fund to be used to support eating houses at the schools for children who should have tickets from the school physician to the effect that they are without proper nourishment? Booths should be built to supply milk to children to take home who are not sufficiently fed.

The need for part of the police supervision and the need for the truant officers will be materially lessened when children have the necessary food to make them more healthy and give them a more normal view of life as it effects them in their growing world. The child properly fed is physically capable to study and employ his time far more advantageously. The man and woman who employ the time of the police to-day are the school boy and school girl of yesterday and the warped school child of to-day will be the dissolute, debauched criminal of to-morrow. From year to year the need of a part of the revenue used to restrain lawless children will grow less and less and there will be a large revenue eventually for children who are unfortunate in other particulars.

Three years ago we hanged three youths who had grown up without regard for civic good and welfare. It was at that time advanced that if we had spent the money which was necessarily used in prosecuting and convicting these boys at a time when it would have been of more good to the state, that is, the expenditure on them in their infancy, would result in training for better deeds. So, too, our reformatories, our homes for feeble-minded children, our sanitariums, are to-day being filled with recruits from this vast army of little ones who have been improperly and meagerly fed. The city, state and nation have to bear the burden sooner or later, why not when most good will eventually accrue to all? Each child beginning its daily task well fed feels better, the outlook on life is brighter, his brain is more receptive and feeling as he does he is more disposed and able to apply himself in the line of greatest usefulness. New York is feeding some of its children who go hungry to school daily, why not Chicago from so enormous a fund?

LUCY F. DOGGETT, Assistant State Analyst.

TAPIOCA IN INDIA.

Cultivation of the Plant as a Famine Food Recommended

From an article in the Indian Trade Journal, of Calcutta, entitled "The Possibilities of Tapioca," but which deals largely with the necessity for its cultivation as food for the people during years of scarcity, the following statistics are extracted:

Many excellent famine plants have been recommended for India, but one of the most important is the tapioca, or cassava, plant, to the planting of which the government of Bombay has again turned its attention.

Tapioca is a plant that is cultivated without difficulty, matures in a year, and gives a bountiful yield, is extremely useful as a hedge or fence in times of plenty, and as food when the monsoon fails; and best of all it has been recommended as a substitute for rice, in place of which it is extensively used in Brazil and parts of the West Indies.

In India, in the absence of irrigation, a crop of rice requires an annual rainfall of at least 36 inches, but to obtain a normal yield it requires 50 to 60 inches of rain, while some varieties of tapioca are said to flourish with a total rainfall of 14 to 16 inches, and the plant thrives admirably when drouths extend over six months at a time, and under certain conditions often does well even with an excessive rainfall of 150 to 200 inches annually. That the plant requires no particular attention and grows well in India has been often demonstrated. There is no waste whatever; the leaves and bark are eaten by cattle with avidity, the stems and branches are used for cuttings or fuel, and the root forms a very nutritious food.

It was found by actual experiment at Sibpur that nine tapioca plants yielded 220 pounds of crude roots, 149½ pounds of pressed, but moist pulp, 33¾ pounds of tapioca flour, and 5½ pounds of tapioca meal, and 6¾ pounds of tapioca, or a total quantity of 45½ pounds of dry food, besides 107 pounds of leaves and 937 cuttings. Planted 5 feet apart an acre would hold about 1,700 plants, which would mean 450 maunds (a maund is about 82 pounds) of crude roots and over 210 maunds of green fodder per acre; but even much closer planting is followed in some countries, 3 feet apart being most favored in the Straits Settlements. In addition there were about 200 maunds of cuttings, or fuel, per acre, so that the Sibpur figures would lead one to expect a crop of 500 rupees (\$162) per acre. In Ceylon the produce has been estimated at 10 tons of green roots per acre. This weighs one-fourth when dried, and if the dried roots gave half this weight of flour it would amount to 2,800 pounds, which would be three times greater than the yield of wheat.

It is not only as a famine food that tapioca demands attention, but also as an article of export. From the Straits Settlements last year the exports amounted to 661,618 piculs (1 picul equals 133⅓ pounds), and the home consumption in the colony is very large. From Netherlands India the exports last year amounted to 494,200 pounds. In Brazil the local consumption is enormous. According to the British consul-general the export of tapioca root last year was about 500 tons and the exports of tapioca flour, 45,596 tons.

The most serious drawback to the cultivation of tapioca in India is that the people are averse to eating it.

NEW PROCESS FOR COCOA.

A German, named Preper, has patented a process in Germany, which has for its object the rendering of cocoa into a soluble powder. After the cocoa beans have been decorticated, they are put into a vessel into which steam containing from half to three per cent of carbonate of ammonia is injected and it is then heated up until the temperature reaches 90 degrees Centigrade. The cocoa beans are subjected to that heat for from six to twelve hours. At the end of that time the cocoa beans are perfectly soluble, and are then torrifed in the usual fashion, but at a temperature from 120 to 130 degrees Centigrade. The beans can then be usually reduced into powder or nibs.

MISSOURI FOOD LAW STILL EXISTS.

October 24, 1908.

Circular No. 76.

MISSOURI PURE FOOD LAW.

To the Members of the National Confectioners' Association of the United States.

Gentlemen: In order that you may be familiar with the present status of the Missouri Pure Food Law, we beg to advise as follows:

Such parts of the law as define adulteration and misbranding and the prohibition of same are still in force.

But there are no legal food commissioners or inspectors existing under the law.

This condition was brought about by a decision rendered by Judge Park, of the Circuit Court of Jackson County, at Kansas City, Mo., in an injunction suit brought against R. M. Washburn, Food Commissioner of Missouri, and M. H. Lamb, Deputy Food Commissioner.

The basis of the court's decision was to the effect that said act of March 22, 1907, being entitled "An act to amend an act entitled 'An act to create the office of state dairy commissioner and to define his term of office, duties and powers, approved' April 8, 1905, by repealing sections 1 and 2, and enacting three new sections in lieu thereof to be known as sections 1, 2 and 2a; and by adding eight new sections thereto, to be known as sections 10, 11, 12, 13, 14, 15, 16 and 17; and appropriating money for the enforcement of said act as amended," contravenes Article IV, Section 28, of the Constitution of Missouri, in that the subject of legislation is not expressed in said title, and therefore, that defendants Washburn and Lamb, claiming the power to investigate and condemn food products only because of the existence of said act approved March 22, 1907, were and are without rightful power and authority to do so.

We advise our members to manufacture and sell within the state of Missouri only such goods as are truthfully labeled and are free from injurious or harmful ingredients. Very obediently yours,

NATIONAL CONFECTIONERS' ASSOCIATION.

V. L. PRICE,

Chairman Executive Committee.

F. D. SEWARD,

Secretary, N. C. A.

THOS. E. LANNEN,

Attorney.

NEW YORK VINEGAR STANDARD.

At a conference between Commissioner Pearson, of the New York State Department of Agriculture, and representatives of about thirty-five of the largest vinegar manufacturers throughout the State last week it was agreed that rulings under the State law relative to the manufacture and sale of vinegar should be as near the requirements of the national pure food law as possible, except that the acidity shall be four and one-half per cent above the requirements of the national law. The conference was called by Commissioner Pearson. The Department of Agriculture has been active of late in collecting samples of vinegar in cities and towns throughout the state, a large number of which, it was found, were not up to the standard.

F. I. D. 97.

Issued October 30, 1908.

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

"Soaked Curd" Cheese.

A change has been introduced in certain portions of the United States in the manufacture of cheese. This change consists in soaking the curd at one stage of the process, in cold water. After drainage, the curd is then salted and put to press.

This treatment is carried on solely for fraudulent purposes. First, it introduces an undue amount of water in the cheese, thus increasing the weight, and, second, it gives a soft texture and an appearance of superior quality, which deceives the purchaser as to its real nature. Cheese thus produced is of inferior quality, for it develops less of the desirable cheese flavor than it otherwise would, and it deteriorates greatly in quality before the curing process is complete.

Under the food and drugs act this type of cheese can not enter interstate commerce nor be sold in the District of Columbia or the Territories under the name of "Cheese" unless this name be further characterized. In the opinion of the Board, this product should be labeled "Soaked Curd Cheese."

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

W. M. HAYS,
Acting Secretary of Agriculture.
Washington, D. C., October 15, 1908.

THE SO-CALLED "ALASKA" WHEAT.

The Bureau of Plant Industry has prepared the following statement in anticipation of inquiries concerning "Alaska" wheat:

A variety of wheat under the name of "Alaska," being widely advertised as capable of yielding at the rate of 200 bushels to the acre "under ordinary soil conditions" and even better "under extra conditions." It is stated that this variety was found growing wild in Alaska, and claims of the most extravagant nature are made for it. In consequence of this notoriety the Department is receiving many requests for seed.

This type of wheat has been known for many years both in this country and in Europe. It has been tried at several State experiment stations in the western part of the United States during the past fifteen years, but nowhere have the yields been high enough to merit attention. The wheat has been grown to a very limited extent on certain heavy undrained soils in France for many years. In such locations it is said to yield rather better than ordinary wheat, but as it is one of the poorest wheats known for making flour it is never grown where ordinary varieties of wheat will thrive.

BAD AIR IN CHICAGO.

Some recent investigations conducted by the Laboratories seems to indicate that the air we breathe in

Chicago is about three times as dusty as that of London, England.

Examinations have recently been made of Chicago air, samples of which were taken at a height of about 40 feet above street level at the following points. Art Institute, Adams street and Michigan avenue; fire station, Washington street and Michigan avenue; at Twelfth street and Michigan avenue and at the corner of Franklin and Madison streets.

The results of these examinations, conducted for a period of ten days, shows that the total deposit of dust and soot per acre in the localities stated is about three times as great as that reported in London. This excess may be partly attributed to the long-continued drought we have experienced. The dirt had not been washed out of the air for some time previous to the collection of specimens.

These experiments will be continued and further reports, upon which correct conclusions can be based, will be made later.

THE PROFESSOR.

Prof. Alexander Bugg was prominent at college,
He held the title Ph. D. and was quite strong on knowledge.

For learned wisdom in all things he wore a bright corona,

But, still, he couldn't find the pocket in his wife's kimona.

He knew by heart the net results of psychic observation;

He called by name each little star throughout the constellation.

Devouring scientific tracts he was a very glutton,
But still, his wife's dress, up the back, he knew not how to button.

He was a most prolific scientific diagrammer,
But glass fruit cans at home he couldn't open with a hammer.

He was a proud authority on questions hydrostatic,
But couldn't fix the kitchen pump or mend a leaky attic.

Political economy was with him quite a hobby,
But with the cook at home he never knew quite how to lobby.

His far famed lectures to his students covered him with glory,

But when his good wife lectured him 'twas quite another story.

He talked of therapeutics and he lectured on climatics,
But every year he was laid up for three weeks with rheumatics.

This goes to show that once he passes through his own home gateway,

The staid professor then becomes a common mortal, straightway.

—Roy K. Moulton.

SUPPRESSING INFECTED MILK IN CHICAGO.

The Chicago Board of Health inspectors made four special investigations of reported cases of contagious diseases on dairy farms during the week. At Grey's Lake, Ill., scarlet fever was found on a dairy farm supplying the Chicago market with cream. The pa-

tient was improperly quarantined and it was found necessary to exclude the product of this farm from the city market. At Elburn, Ill., scarlet fever was also found on a dairy farm and milk therefrom was denied admission to Chicago. Near Elkhorn, Wis., five cases of scarlet fever were discovered on dairy farms that supplied milk to an Elkhorn creamery. This supply was also excluded from the Chicago market. Dairy farms in the vicinity of the newly established city of Argo, Ill., were also investigated, it having come to the notice of the department that considerable typhoid existed in that locality. It was found that very little milk is being shipped into Chicago from that quarter.

It has further been found that dairymen are resorting to the dangerous practice of converting their excluded milk supplies into butter and that eventually this product reaches the market. The department considers butter, made on these infected farms, practically as great a menace to health and life as is the milk. They find it much more difficult to watch the disposition of this butter, hence have asked the secretary of the State Board of Health to also employ his forces to prevent the sale of this infected product. The state authorities have the power to condemn this butter on the premises, the city cannot touch it until offered for sale within the city limits.

The Indiana state health authorities have made a thorough investigation of the typhoid fever situation at Hartsdale and have succeeded in having a fine imposed on the local dairymen who continued to supply milk to a West Pullman (Chicago) dealer while the disease was present on his premises. They also found butter being made on this farm and compelled the dairyman to melt all such butter before offering it for sale.

TUBERCULOSIS COWS NEAR CHICAGO.

The Dairy Inspectors of the Chicago Health Department report that considerable tuberculin testing of cattle is being carried on in the territory supplying milk and milk products to the Chicago market.

On one farm 24 out of 26 cows gave a positive tuberculin test. This large number of positive findings naturally caused the farmer to doubt the efficacy of the tuberculin test. To remove this doubt and demonstrate the efficiency of the test a public killing of one of the cows that had given a positive reaction was announced and attended by more than 100 farmers. The farmers were permitted to select any one of the cows that had given the reaction for this demonstration. The healthiest appearing animal was chosen. The post mortem examination showed tuberculosis of the cervical glands, the mesenteric and subhepatic lymphatic gland, and of the liver.

Another object lesson was given these farmers whereby they were taught that illy ventilated barns were a decided menace to the health of their animals. The barn in which the 26 cows were housed, 24 of which were tubercular, was not provided with any means for ventilation and had but two very small windows used for light only. It was explained to the farmers that this was a cause of the rapid development of tuberculosis in this herd.

The Department again serves notice that after Jan. 1, 1909, no milk or milk products can be sold in the Chicago market excepting that derived from cows that have passed a negative tuberculin test during the preceding year. Milk and milk products other-

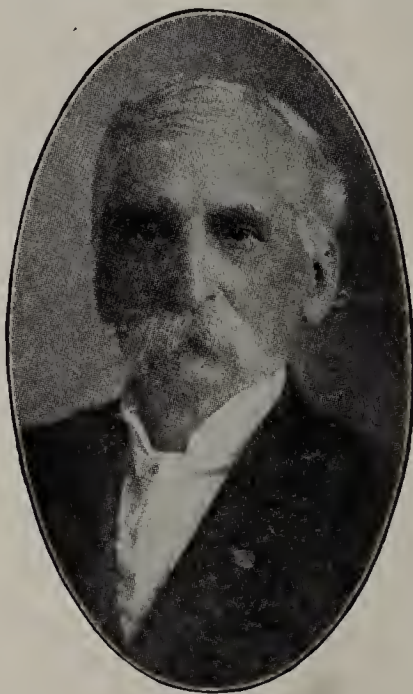
wise derived must be pasteurized before offered for sale.

The Daily Inspectors made 237 examinations of dairy farms, finding 103 below the required sanitary standard. They found 79 insanitary barns and 56 insanitary milk-houses. On 59 farms no milkhouses were maintained.

THE NATIONAL DAIRY SHOW.

The Third Annual Dairy Show needs but little introduction to the dairymen and farmers of the country.

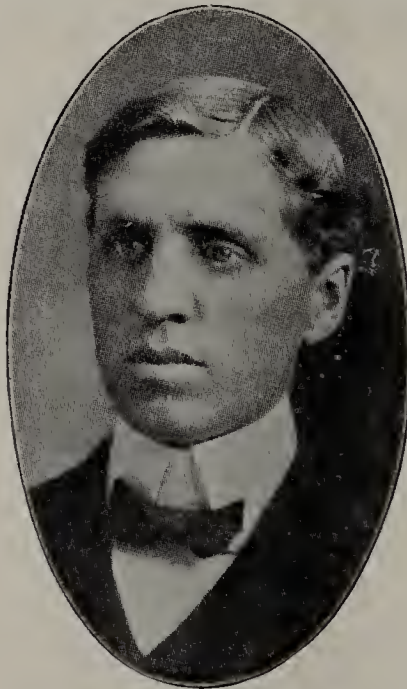
The two previous shows have been successes and they have given dignity and showed the greatness of the dairy industry. They have been educational. An industry that is worth \$800,000,000 a year to a country should be represented by a strong and active organization, and the two previous shows indicate that the National Dairy Show Association is filling this place. It is difficult for any one to comprehend the magnitude of interests that are identified with this industry. Every citizen



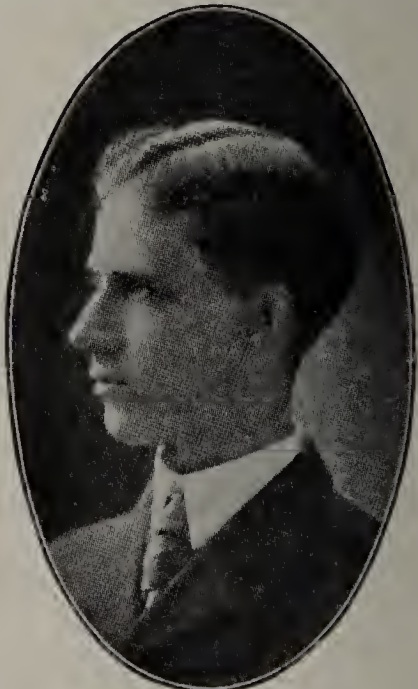
H. B. Gurler,
President.

in the United States is a consumer of dairy products, which means that all the people, whether they live in the country or city, are more or less interested in dairying.

The Third Annual Dairy Show that will be held in Chicago at the Coliseum December 2 to 10, 1908, will have the largest and best display of all kinds of dairy products, machinery and cattle that has ever been exhibited before the American people. Plans also have



A. J. Glover,
General Manager.



H. E. VanNorman,
Vice-President.

already been laid for strong educational features. A contest for creamery and cheese factory managers and secretaries will be held. The International Milk Dealers' Association will hold its convention at the Dairy Show, and there will also be a Dairymen's program.

Speakers of national prominence will appear before these meetings and a profitable time is anticipated. The educational features begin the first day of the show and continue to the close.

Besides the educational programs proper two entertainments will be given daily. These entertainments will be in keeping with the dairy industry and will be a novelty in their make-up and presentation. As the different breeds of cattle are paraded in the arena, maidens dressed in costumes representing the milkmaids of the countries in which the different dairy breeds of cattle originated will appear twice a day in appropriate song. There will be a milkmaids' contest where goats will be used instead of cows.

The churning contest will add charm to the program, for all the different kinds of churns will be

REPORT OF INVESTIGATING COMMITTEE ON POISONING AT MACKINAC.

Lansing, Mich., October 5, 1908.

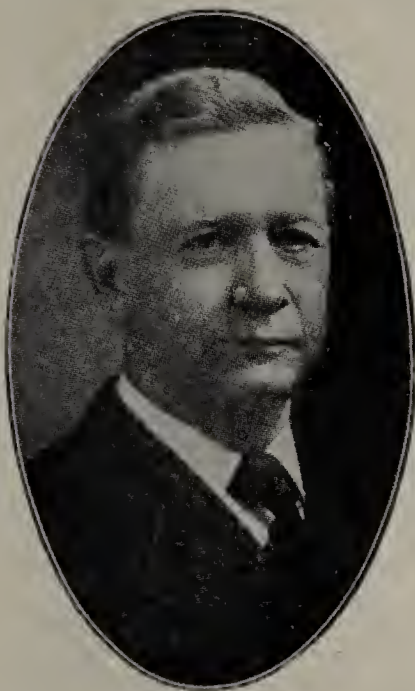
Hon. A. C. Bird,

Dairy and Food Commissioner,
Lansing, Mich.

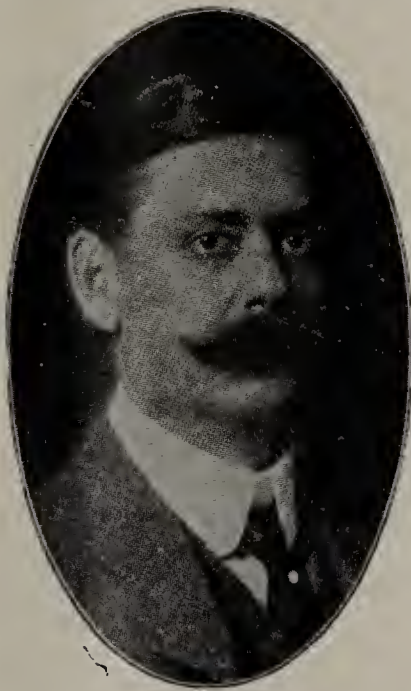
My Dear Sir: I beg leave to submit herewith results of the investigation into the causes of the epidemic prevalent at the Grand Hotel at Mackinac Island during the convention of the Association of State and National Food and Dairy Departments in the week of August 4, of this year.

So many delegates and members of their families were stricken with bowel trouble during the convention and particularly on August 5, that the writer was directed by you to make an investigation into the causes. Dr. W. D. Bigelow, Chief Division of Foods; Mr. W. G. Campbell, Chief Food and Drug Inspector (U. S. Government), and Dr. C. H. Irion, President of the Louisiana Board of Health, accompanied the writer. Inspection of the kitchen and grounds surrounding the Grand Hotel were made during the noon hour. Later in the same day the matter was referred to Mr. G. M. Dame and the entire matter placed in his hands for investigation. A second and more detailed investigation was made by Mr. Dame. Without discussing the findings it may be sufficient to say that Mr. Dame immediately notified the management to make at once the following improvements: All windows in the kitchen and serving room to be re-screened, special attention being given to 17 windows and 4 doors where the screens in places were damaged. These were ordered replaced by new ones. A general cleaning up of the fish and poultry rooms and the rejection of some stocks of meats then on hand. The building of a new meat cutting room where meats and poultry are prepared for the kitchen, which is to be well ventilated and extra precaution taken with regard to flies. A general cleaning up of the court adjacent to the kitchen and prompt removal of the garbage."

The above changes were imperative in order to remedy conditions found by Mr. Dame. Mr. Dame then began an inspection of the water supply, and on this investigation Mr. W. C. Campbell and the writer accompanied him. From the examination made at this time it became apparent that a thorough study and investigation of the water supply at Mackinac Island were desirable and Mr. Dame continued his investigations during the entire month of August. Regarding the water supply he found and reported the following: The intake pipe supplying the Grand Hotel extends 200 feet from the shore line of the Straits of Mackinac. The outer end of this pipe dips into eight feet of water. The main sewer extends into the water from the shore line about 165 feet and dips into a depth of 8 feet of water. The distance from the outlet of sewer to the intake of water is approximately 540 feet. The sewer being 540 feet east of the intake pipe. The trend of the outlet of the sewer is practically east. The trend of current in the Straits of Mackinac the greater part of the time is to the eastward, but when the wind blows from points from the northwest to southeast the current of the straits has been to the westward, as on August 26 the direction of the wind was east by southeast, velocity 24 miles per hour, and the current in the straits on the south side of the island was to the west, clearly discernible to the eye and at this particular time the sewage from the



E. Sudendorf,
Secretary.



Granger Farwell,
Treasurer.

used and the contestants will be clothed in costumes representing the dress of the dairymaids of the different dairy countries.

A trained bull, the only one in the world, and something out of the ordinary, but quite within the proper bounds for a dairy show, will perform twice each day.

A country circus, representing scenes on the farm, will introduce trained pigs, dogs, sheep and chickens. The milking machine will be in operation twice a day and the prize-winning dairy cows will be paraded in the arena afternoon and evening.

The students' judging contest is a new feature for this year's show, and will be the means of bringing a large number of interested people to see the different agricultural colleges compete for trophies offered by the different breed associations. The students of these colleges will add zest and life to the program, as well as dignity to the dairy show.

The time set for holding the dairy show is somewhat later than last year. But it comes at a season of the year when the farmer can leave home. Beside this, it is held at the same time as the International Live Stock Exposition, which gives the dairymen a splendid opportunity to see two big events in one week.

The officers of the association are H. B. Gurler, president; E. Sudendorf, secretary; Granger Farwell, treasurer; H. E. Van Norman, vice-president; A. J. Glover, general manager.

outlet of the main sewer was plainly noticeable by the discoloration of the water up to and for a distance of 300 feet beyond the intake of the water pipe which supplies the Grand Hotel. There is also on the south side of the island a 16-inch sewer which empties into the straits on the west side of the city and on the above date mentioned the discoloration of the water was plainly noticeable from this sewer to the intake of water pipe which supplies the Grand Hotel, which is distant about 1,600 feet. After ascertaining the above conditions Mr. Dame forbid the use of any water from the pumping station for drinking purposes on the tables or by the help at the hotel. Continuing Mr. Dame adds that on August 5 a brisk northerly wind was blowing all day, and basing his statements on the investigation of August 26, he reports that in his opinion a considerable of the disturbance caused on August 5 must have been due to the water supply. At the time of his inspection on August 26, seven samples of water were taken by him and submitted for investigation to the laboratory. Three of these samples were condemned as contaminated. The sample taken from the tap at the Chippewa Hotel, a sample taken at the pumping station that supplies the Grand Hotel and a sample taken from the tap in the Grand Hotel where water bottles were filled for table use. The following were found above suspicion: A sample taken from the spring from which water was obtained for drinking purposes at the Grand Hotel after August 5, on which date the authorities at the Grand Hotel were cautioned against using the water from the pumping station. A sample taken at the city water works station and some taken at the spring on the west side of the island and a sample taken in the Murray Hotel.

It is apparent from the results of the investigation that contaminated water, unwholesome fish and a general lack of proper sanitary kitchen and food dispensing environments were responsible for the prevailing epidemic. While it is unfortunate that these conditions were not apparent to us earlier in the year, yet I think you will agree that it is very fortunate that an investigation was taken up at the time it was. Permit me to say further that on Mr. Dame's second visit to the island shortly following August 5, he reports that the management of the Grand Hotel had complied to the letter with every suggestion made by us while there, and by Mr. Dame later, and that they seem very desirous of doing everything in their power to put the conditions above reproach. Mr. Dame is to be congratulated on his thoroughness in this investigation.

Very truly yours,

FLOYD W. ROBISON,
State Analyst.

ALUM IN PICKLES.

Dr. Dillon, chairman of the New Louisiana State Board of Health, states that the board has considered the matter carefully and thoroughly and has finally decided that the use of alum in the preparation of pickles will not be prohibited under the new sanitary code. This is in line with the United States pure food laws, he says, which the state board had endeavored to follow as closely as possible. It is said the amount of alum used is so small that it would have no deleterious effect on the human system of even a confirmed pickle eater, and the best authorities have decided that it is not necessary to prohibit its use.—American Grocer.

SCIENTIFIC

PRODUCTION OF CAFFEINE AND COFFEE FREE FROM NARCOTIC.

Consul-General A. M. Thackara, of Berlin, contributes the following valuable account of the progress made by German chemical houses in the production of caffeine from various sources, caffeine-free coffee and their sale in Germany and abroad:

Caffeine, which has been found to be identical with thein of tea and guarin of guarana, belongs to the family of plant alkaloids, which can be produced by chemical processes from various substances. It may be found in the leaves and berries of the coffee tree, leaves and flowers of China, and Ceylon and other East Indian tea leaves, leaves of Paraguay tea, kola nuts, guarana-pasta, in paulinia seeds of one of the Brazilian creepers (*Paulinia saubilis*), in the bush tea of South Africa, and in the Appalachian tea of the North American Indians.

In Germany the great bulk of the caffeine of commerce is at present produced partly from the refuse of China and Ceylon tea and partly from the tea imported from China for the purpose, supposed to consist more or less of tea once used by the Chinese and then dried.

Caffeine is also produced as a by-product by a Bremen firm in the patented process of manufacturing the caffeine-free coffee, which is claimed to contain only an exceedingly small quantity of the caffeine alkaloid and can be used without any of the harmful effects of the pure coffee. The process is patented in most countries, but the method of manufacture is kept secret. I am told that the caffeine is extracted by means of benzol, the coffee bean being treated by a secret process in porcelain vessels.

SUBSIDIARY AND SALE COMPANIES—SYNTHETIC CAFFEINE.

Beside the parent company there has been recently incorporated another stock company, with a capital of 2,500,000 marks (\$595,000), for the purpose of acquiring, protecting, and exploiting the patents of the original company in foreign countries. The original company cedes the entire rights of the patents for the manufacture of caffeine-free coffee, tea, and other products to the new company in the following countries: Belgium, France, Austria-Hungary, Denmark, Sweden, England, Italy, Finland, Spain, Portugal, United States, Canada, Brazil, Argentine Confederation, Peru, Chile, Cuba, and also in the following countries as soon as the patents for which application has been made have been granted: Norway, Turkey, Mexico, and Uruguay.

Both of the companies mentioned are under agreement to turn over to a third company the caffeine which they extract from the coffee, to be refined and sold commercially.

It may be stated that the caffeine-free product is being extensively advertised in Germany and appears to be meeting with success. The extraction of the alkaloid does not appreciably alter either the flavor or the appearance of the bean.

Caffeine is also produced synthetically from guano and uric acid by a firm in Waldhof bei Mannheim un-

der numerous patents, but from well-informed circles it is learned that the artificial product is virtually still in the experimental stage.

PROCESS OF MANUFACTURE.

The various manufacturers who produce caffeine from tea have their more or less secret processes. In general terms the method of extracting the alkaloid from tea is as follows: Ten parts of the tea are mixed with one part of lime and digested with three parts of hot water for several hours on the hot-water bath. The extract is passed through cheese cloth and the process repeated several times. The extracts are united, allowed to settle, filtered and treated with lead acetate till the addition of more lead acetate still produces turbidity. The precipitate is allowed to settle, the clear liquid decanted and concentrated on the water bath, mixed with pure potassium sulphate and animal charcoal (one-fourth part of each), the whole evaporated to dryness and then extracted with chloroform. The chloroform is distilled off and the residue recrystallized from boiling water. This latter process is sometimes repeated as many as six times till the caffeine is cleansed from all coloring material, it having been brown at first. There is also another process in which the caffeine is from the start extracted with chloroform, but this method is more expensive on account of the greater consumption of chloroform, but the product is supposed to be of greater purity. The less pure article is usually exported.

There are no statistics published which would indicate the production of our foreign trade in caffeine in Germany, but from information obtained from one of the large German chemical companies, there are about 20,000 kilos (44,092 pounds) manufactured annually, of which more than one-half is exported. The imports of the product are comparatively small, probably not over 1,000 kilos (2,204.6 pounds).

The total European caffeine production is estimated at 23,000 kilos (50,706 pounds) of which 13,000 kilos (28,660 pounds) are exported from the various countries of production.

SAUSAGE CASINGS IN FRANCE.

Strict Sanitary Control Over Animals for Slaughtering.

In compliance with requests for information concerning the sanitary supervision which is exercised in France over the entrails of animals which are to be used as casings for sausages, Consul-General Frank H. Mason writes from Paris as follows:

The laws of France, notably the statute of July 21, 1881, require that every animal, whether native or imported to this country, shall, before being slaughtered for food, be subjected to a veterinary inspection. Even cattle, hogs, and sheep which are sold by farmers to local butchers in rural districts are subject to the same invariable system of inspection before they can be slaughtered and their flesh offered for sale.

If an animal is found afflicted with a contagious disease it is seized, killed, and its entire body, hide and viscera, horns and hoofs, destroyed by fire. If the animal is found to be afflicted with a non-contagious disease it is killed and its flesh and viscera soaked with petroleum, so that they cannot be used for human food. In some cases the meat of such animals is permitted to be used, under supervision and without impregnation with petroleum, for such purposes as feeding carnivorous animals in menageries. Cattle afflicted with tuberculosis are treated in this manner—no

part of the carcass or viscera can be used for human food, but the hides, horns, and hoofs may be used for the usual purposes.

When any domestic animal has passed the official inspection and has been pronounced sound, so that it may be slaughtered and its flesh sold for food, the entrails may be used for sausage casings without any further inspection or certificate, and this principle is general, namely, the official inspection of the animal covers both flesh and viscera, and there is no special inspection for entrails. There can be, therefore, in France no sausage casings from noninspected animals, since no ox, cow, calf, hog, sheep, goat, or horse can be slaughtered without having undergone the prescribed inspection, and if found diseased its viscera are either impregnated with petroleum or destroyed.

In rural districts where no public furnace is available for burning the flesh and other parts of diseased animals the law prescribes that they shall be buried.

TAXING FOODS.

One of the reasons why the cheap breakfast table of our fathers has been supplanted by the dear breakfast table of their sons is the enhanced price of butter. In addition to tariff duties of 6 cents a pound on butter and 2 cents a gallon on milk, oleomargarine, a cheap, palatable, and wholesome article of food, is taxed out of competition with butter. The result is, the highest-priced butter of any great people is found on the table of the American housekeeper.

But that is not all. American butter of the choicest brands is sold in the grocery stores of Europe at a price from 5 to 10 cents a pound less than the American housekeeper pays for it in any city of the United States. It competes with the butter of Denmark of Ireland, of England, of Switzerland, of France, of the channel isles. Secure in the home markets of a nation of nearly 90,000,000 inhabitants, where competition has been eradicated—and butter will reach 50 cents a pound in this town the coming winter—the butter trust limits the domestic supply, establishes whatever price it chooses, and dumps its surplus on Europe at any price it will fetch.

It cannot be too frequently urged that the marvelous material development of our country throughout the nineteenth century was due as much to cheap food as to any other single agency. Cheap food on the American table is a thing of the past, says *The Washington Post*. The table itself, its furniture, and the foods on it, are taxed to the quick, and everything in connection with the dining room is highly taxed, except coffee, tea, and pepper.

On the other hand, the three articles named are the only ones on the breakfast table the Englishman pays taxes on. His meat and bread, his table, chairs, linen, butter, game, fish, fruits, vegetables are free, and he gets them at the very lowest price they can be bought for in the open and cheapest markets in the world.

This item of cheap foods will be the paramount one of these days and it will sweep the country like the cholera. The carcasses of Australian rabbits and Argentine muttons will be invited to reduce the price of meats furnished by the trusts.

And let us hope that Ireland and Denmark, to say nothing of Canada, will be allowed to sell our people cheaper butter.

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THE DEBATE ON PRESERVATIVES.

Last month the New York section of the Society of Chemical Industry relieved the dryness of the usual discussion of technical and scientific papers by a debate on the question of whether preservatives should be prohibited in food. Inasmuch as the government and several states have already decreed that preservatives are poisonous and their presence in food an invitation for a court judgment and fine the debate on this subject seems much of the nature of a post mortem examination.

But, anyhow, the debate was held, and Dr. Wiley argued con and Mr. Read Gordon pro, with some lesser light pro and con.

Dr. Wiley took scriptural texts for the heads of his topics. The talk was not billed as a humorous lecture, either.

Dr. Wiley confined himself, as he himself said, to the ethical and legal side of the question, being a great ethic and lawyer, but apparently not feeling very secure in science.

No one but a bigot will deny that the question of the propriety of the addition of preservatives to food stuffs is a debatable one, as is also the question of the kind, amounts and proper labeling of preservatives, if the use of any preservatives is to be allowed. In the forensic battle statistics may be quoted, experiments may be made, on man and animals, and deductions drawn, and the good and evil of preservatives enumerated and balanced. Unfortunately every one who has given thought to this question of late years has argued from a partisan standpoint. No real experts have studied the question, for in law an expert is one who is capable of seeing both sides. In as much as President Roosevelt has appointed a committee composed of men who while not perhaps representative of the food chemists, are still men of the greatest ability, long leaders in science, and from their position as professors in the leading colleges of the country, unbiased and not susceptible to influence by government employment and emoluments. In as much as the debatable questions under the food law have been left by the highest authority in this country to the wisest board, would it not be proper and ethical to leave the question to this board, and particularly so if no new scientific, moral or ethical observation is crying for expression? In fact, isn't it discourteous to the president, to put it mildly, for Dr. Wiley, a

subordinate, to publicly take a partisan stand on a subject expressly taken from his control and placed in the hands of a non-partisan board?

There is no need of republishing the arguments advanced by the affirmative or negative side in this debate, as they are old and as far as Dr. Wiley's position is concerned far more logically put in some of the bulletins issued in his name emanating from the Bureau of Chemistry, Department of Agriculture.

As regards Dr. Wiley's end of the debate, the logic is characteristic of the logician.

He relieves himself of responsibility for the so-called condimental preservatives by saying that he is charged with the enforcement of the law and the law defines as foods the condimental substances which are added and therefore he says that that part of the subject is not logically or legally debatable. Wouldn't it have been better for him to have confined his preface at least to facts and then his conclusions and arguments might have some weight? Not Dr. Wiley, but the secretary of agriculture, is charged with the interpretation of the act. The Department of Chemistry merely makes the analysis and reports findings. The law does not say one word about defining as food the condimental substances which are added, whatever that may mean. It does not mention condimental substances at all but does define the term "food" as used in the act in broad enough terms to include all articles used for food, drink, confectionery or condiment whether used by man or other animals. The law is therefore broad enough to compel the sale of genuine and unadulterated liquors, candy and pepper, as well as arsenic, but would not countenance improper mixtures, as pepper in wine, cattle foods in human foods, hay in flour, or as expressly stated in the statute, liquors in candy.

The law places no protectorate over poisons unless inherent in the food itself.

Once we enjoyed hearing a colored evangelist of the Hardshell Baptist faith enlighten his flock on the text "And every mountain and hill shall be brought low," which he repeated irrespective of fitness, at the conclusion of about every sentence. Dr. Wiley's scriptural headings remind us mightily of this sermon and it would seem that the six quotations used constituted the sum total of his Biblical lore and it was necessary to manufacture some sort of logic to fit the texts.

First—"What man is there of you, whom if his son ask bread, will he give him a stone? Or if he ask fish, will he give him a serpent?"

Under this head he quite properly condemns substitution and misbranding, but the prohibition of a preservative in food rests not on the provisions defining misbranding but those defining adulteration, which are quite distinct in the national food law.

Second—"Ye shall know men by their fruits. Do men gather grapes of thorns, or figs of thistles? For whatsoever a man soweth, that shall he also reap."

Under this text he argues that if a man eateth food containing preservatives it will at last hurteth him, but presents no proof of such injury which is the point of contention. But Dr. Wiley's interpretation of the text will solve the process whereby Lot's wife became converted into a pillar of salt. She undoubtedly ate foods preserved with salt, considering her sex, no doubt olives or dill pickles and suffered the penalty.

Third—Abstain from all appearance of evil.

To quote verbatim under this head consideration

was given to the question. Is there a special class of foods of limited use to which a preservative may be added?

Fourth—"Six days shalt thou labor and do all thy work. Which of you shall have an ass or an ox fallen into a pit, and will not straightway pull him out on the Sabbath day?"

From this text he argued that preservatives are not necessary to the marketing of food however perishable its nature, but as the thought is in absolute contrast to the thought of the text almost any other verse in the Bible would have answered better. Even Matthew 8:31, Therefore take no thought, saying, what shall we eat? or what shall we drink?

Fifth—The poor always ye have with you.

Under this misquoted text an attempt is made to show that preservatives increase the price of food to the poor man. Whatever the evil of preservatives this surely is not one of them. Chemical preservatives replace higher priced methods of preserving. Sterilization, probably the best method, necessitates small packages and consequent high price. Two pint bottles always cost more than one quart bottle. A better text would be "To them that hath shall be given."

Sixth—"Blessed are ye, when men shall revile you, and persecute you, and shall say all manner of evil against you falsely."

Under this text Dr. Wiley classes himself with the Disciples. That there has been and is much criticism of Dr. Wiley in his daily talks to the public and in the conduct of his office, no one can deny. Whether this criticism rest on a true or false basis let the authorities decide. We might quote a text, not possibly found in Holy Writ, but believed in by all nations and peoples: Where there is much smoke there must be some fire.

WIN WHISKY CASE.

The Department of Agriculture won a decided victory in the whisky case tried in Baltimore on the 26th of October. The case was one in which forty-five (45) barrels of liquor made from molasses branded "Bourbon Whisky" were seized by the Agricultural Department under the Pure Food and Drugs Act, the department claiming that the goods did not conform to the law and that they were misbranded.

The attorneys for the defendant claimed that the government were stopped from condemning the seized liquor because such liquor had been made and branded "Bourbon Whisky" for seven (7) years under the direct supervision of the government, and that it had always been treated as such in the annual reports of the Commissioner of Internal Revenue.

The government claimed that the liquor being made from molasses was "rum," and that whisky could only be made from grain, and that "Bourbon Whisky" was the exclusive product of Kentucky.

Judge Morrison, in instructing the jury, said they should give a verdict for the government if they found that "Bourbon Whisky" could only be made from grain and that "Bourbon Whisky" must be made in Kentucky. The jury accepted this view of the case and rendered their verdict accordingly.

It is thought this case may have an important bearing on other similar suits now pending.

DEATH OF DR. HARRINGTON.

The Food officials were grieved to learn of the death of Dr. Charles Harrington early in September while that excellent public official was in England. It was some weeks after the demise of Dr. Harrington before the sad news reached the American public. Dr. Harrington was secretary of the Massachusetts State Board of Health. For a number of years he was assistant in chemistry at Harvard under Professor Wood, and all his life he was intensely interested in matters pertaining to that branch of science. For a long time he was in the employ of the city of Boston. In 1904 he was appointed secretary of the State Board of Health.

Chief interest in Dr. Harrington's career centers in his leadership in the cause of pure foods, and he worked early and late to establish a standard of purity and banish adulterations of food. Dr. Harrington had a wide command of every phase of subject touching the public health and eternal vigilance was his watchword. In many respects Dr. Harrington was a pioneer in his methods of safeguarding the public health, and his place in the community will be hard to fill.

A memorial service was held for Dr. Harrington at Emmanuel Church, Boston. His body was cremated abroad and the ashes will be brought to this country for burial.

SECTION OF PENNSYLVANIA LAW KNOCKED OUT.

The decision of Judge Smith of the Clearfield County Court, published elsewhere in this issue, is the second decision declaring the Pennsylvania Food Law (Tuscin Act) in whole or in part unconstitutional. Judge Bell, in a decision heretofore published, declared Section 5 unconstitutional and that this destroyed the entire law. Judge Smith, while holding with Judge Bell that Clause 5 is unconstitutional, disagrees with him that the whole law is therefore invalidated.

In the second test case Edward and George Daugherty, retail grocers of Dubois, Clearfield County, were arrested charged with selling evaporated peaches bleached with sulphur dioxide in violation of the food law. The defendants were acquitted and the case dismissed.

PROCESS BUTTER.

Prof. E. F. Ladd has received word from the East that certain parties are collecting large quantities of rancid butter, lard, tallow and paraffin and shipping to St. Paul and Minneapolis, where it is worked over and renovated and then shipped back to the Dakotas as creamery butter. Some of this renovated butter, Prof. Ladd's informant says, is shipped to New York and sold as Elgin butter. Can it be that our Elgin people are letting this profitable trade slip out of their hands?

PARAFFIN IN CANDY.

Last month seven confectioners of Oakland, Cal., plead guilty to selling "Candy Chews" containing paraffin. They were fined \$25 and costs. Ignorance is no longer an excuse for the adulteration of candy with such generally recognized objectionable substance as paraffin. A jail sentence would be none to severe a penalty for this kind of crime.

FOOD NOTES

TO FIGHT FOR OLEO'S RIGHTS.—The fight against the Butter Trust and the strenuous campaign of Food Commissioner Foust of Pennsylvania is about to take a concrete form. Organized labor has taken up the fight, and is forming an organization to fight the trust in an attempt to enable workingmen to buy the necessities of life without paying tribute. Pittsburg is in the front of this movement, and within the next few weeks an organization will be formed, the first in the country. Local labor leaders are preparing plans, nation in character, and every effort will be made to have it spread from coast to coast.

Among the things which will occupy the attention of this organization will be amendments or repeal of the oleo laws, enacted under the plea of "protecting the farmer," but which have been perfected in order to permit "the trust" to work its will. The maker of "poor man's butter," commonly known as butterine or oleo, is at a disadvantage. The various taxes on this product, it is contended, compel maker and dealer to sell an article designed to be sold at a low figure, for almost as high figures as natural butter.

The Retail Dealers' Protective Association of Pennsylvania is also awake to the situation, and will oppose the passage of any new or more stringent laws. This association will aid the working people to further the cause of "poor man's butter," a purer and better product than much of the creamery butter, and Commissioner Foust is sure to meet with considerable opposition when he goes before the coming legislature with his new bill.

It is proposed to arouse the laboring classes to a realization of the injustice of the oleo laws, and have the laws repealed, or changed to admit the sale of butterine without so many restrictions. It is argued that other products made in imitation of an original product are not taxed, nor is there any restriction placed on their sale.

* * *

GROCERS AND PURE CIDER VINEGAR.—"Some Pennsylvania dealers have got themselves into trouble recently because of their preference for cheap vinegar. In consequence they have gone outside of the state and in some cases purchased 'cider' vinegar that does not contain a drop of cider," says Commissioner Foust, of Pennsylvania. "Vinegar made of acids is not only injurious to the health of the consumer, but also an illegal product. It cannot be sold in this state without violation of law. Under the vinegar law of Pennsylvania many of the farmers are engaged in the manufacture of pure cider vinegar which they are quite willing to sell to the local grocers or to others. It may be that their product is a little more costly than the adulterated goods, but it is wholesome and it should be preferred by dealers as it certainly will be by the consuming public. Those grocers who have found themselves taken into court for selling unfit vinegar have only themselves to blame."

* * *

Food stuffs to the value of \$1,500,000 are destroyed every year in Greater Gotham. That is to say, the food if in good condition would be valued at one and one-half million. Presumably as found and condemned by the inspectors it is practically worth-

less. Most of the condemned material consisted of decayed fruits although some meats, canned goods and dairy products were confiscated. In telling of the superior inspection of food under the present officials Mr. Fuller, head of the Bureau of Food Inspection for New York City, in a lengthy interview in the New York Sun, says: "Black pepper with ground almond pits is no longer sold in New York. Maple syrup with some other reducing sugar in its make-up is not to be found, nor is honey with glucose adulteration. Time was when they went so far as to make counterfeit honey combs and fill them with adulterated honey, but you can find nothing like that being done now."

Ground almond pits in pepper and other reducing sugars in maple syrup are good, but isn't it time that old scarecrow counterfeit comb honey be laid on the shelf?

* * *

At the last meeting of the Louisiana section of the American Chemical Society a paper was read by Dr. Asher on "Imported Drugs," in which he spoke of the charge that there was a great deal of adulteration in drugs entering into the port at New Orleans. A resolution was carried that a committee consisting of Drs. Asher, Hamilton Jones and A. Guidry be appointed to probe the statement made by B. M. Rusby, chief inspector of drugs for New York, that adulterated foreign drugs in New York were admitted in the United States through the New Orleans port. It is the duty of the agricultural department to prevent the introduction into this country of adulterated drugs, and Prof. Harrison, who has charge of the drug inspection work in New Orleans, when confronted with the charges, claimed that there were no more impure drugs imported through the New Orleans port than through the New York port, in fact, he said that there were more adulterated drugs slipped into New York than through the New Orleans laboratories, on account of the relative volume of the business transacted at the two ports.

* * *

BIG SEIZURE OF SYRUP.—Two hundred and ninety-six cases and 93 cans of syrup were confiscated by an agent of the Pure Food Department at Denver from Shields & Morely and O. E. Hemmenway, grocers, of Colorado Springs, to whom it was shipped by the Scudder Syrup Company, of Chicago.

The brand on the syrup is "Scudder Pure Maple Syrup," and on each can is a picture of a maple grove. The pure food inspectors accuse the manufacturers of misbranding the cans. And unless they put "Cane Sugar" in conspicuous letters on the labels hereafter the Pure Food Department threatens to confiscate every case and can of the syrup shipped into Colorado.

The Colorado Springs grocers promised to ship back the confiscated syrup to Chicago, and the goods were released on promise of manufacturers to sell the product outside of Colorado.

* * *

State Food and Dairy Commissioner H. R. Wright has been successful in securing the conviction of several of the retail grocers prominent in Marshalltown, Iowa, for selling adulterated or misbranded flavoring extracts. The local grocers, however, were fully protected by the wholesale firms who sold them the extracts as they were guaranteed to comply with the Iowa law.

FAMOUS BLEACHED FLOUR CASE.—The case of the Russell Miller Milling Company vs. E. F. Ladd, Pure Food Commissioner of North Dakota, for a permanent injunction restraining him from issuing bulletin to the public as to the harmful effects of bleached flour, came up for hearing before Judge Pollock in the Cass County District Court, Fargo, N. D., on October 24. From the testimony so far offered it is evident that the attorneys on both sides are prepared to fight every inch of the ground. It is a battle to the bitter end and there was in the court room during the entire day a tension which showed how momentous was the question involved.

The first witness called was John A. Mitchell, the manager of the Alsop Manufacturing Company. Mr. Mitchell's testimony was largely technical. He told how the flour is bleached and testified as to the number of mills that use the process, etc. He claims that every mill in Minneapolis, the largest flour manufacturing center in the world, use the bleached flour process and he claims that there are about 1,200 mills throughout the United States that use the process.

* * *

The Board of Health of California were unsuccessful in convicting the California Paste Co. of violating the net weight clause of the California Pure Food Law. It was charged that the company sold five (5) boxes of macaroni labeled as containing twenty-five (25) pounds, whereas, in fact, the macaroni weighed about twenty (20) pounds. C. R. Splivalo, president of the company, testified that the weight referred to was the weight of the boxes and contents. In dismissing the case Judge Weller said he believed that the defendant did not know the law and that there was no intent to defraud the public, therefore he dismissed the case against the company.

* * *

West, Elliot & Gordon, of San Francisco, Cal., are charged with selling Topaz catsup and Worcester-shire sauce containing the "added deleterious ingredient," benzoic acid, as a preservative. Their cases were continued a week for the purpose of giving the company an opportunity to secure from the Pacific Preserve Company, from whom the condiments were purchased, a guarantee, which they claim they were promised. If produced the guarantee will relieve West, Elliot & Gordon from responsibility and will shift the charge to the preserve company.

* * *

It is admitted by packers that a large amount of cheap jellies, tomato catsups, etc., are made from refuse of the better grades, that is, from the cores and peelings of apples, tomato skins, etc. There has been talk among the government officials of preventing the sale of this class of foodstuffs. However, under a ruling of the Board of Food and Drug Inspection it is doubtful if such prohibition would hold if packages containing such refuse substances were labeled to contain "skins," "trimmings" or some appellation of similar meaning.

* * *

The new State Board of Health of Louisiana are taking a conservative position as regards proclaiming and enforcing food regulations not authorized in the statutes. At a recent meeting held by the board it was decided not to proscribe the refilling of prescriptions by druggists unless such prescriptions were accompanied by the statement "do not refill."

COURT DECISIONS.

STATE OF MICHIGAN.

The Circuit Court for the County of Ingham, in Chancery.

Armour & Company,

vs.

Arthur C. Bird, Dairy and
Food Commissioner, et al.

OPINION.

The bill in this case is filed by Armour & Company, to restrain the Dairy and Food Commissioner of the state of Michigan and his deputies from threatening retail meat dealers in Michigan with prosecution if they sell sausage containing cereal.

The case is of importance, for it involves the business practices of a great packing concern, the duties of an administrative department of the state government under the pure food law, and the rights of consumers of sausage in the state.

Complainant makes out of this state, and markets in the state, many varieties of sausage, and its products are retailed by residents of this state, over butcher counters to consumers.

The bill alleges that, in making the sausage sold in this state, complainant uses from one to ten per cent of cereal, and the proof shows that water is also added to the product.

It is claimed by complainant that the use of cereal is legitimate and demanded by the consumers, that it improves the appearance of the product, makes it keep better, distributes and holds the juices and moisture of the meat so that when it is fried it is more juicy and palatable than sausage without cereal, and does not injure or detract from its value as a food product.

Complainant contends it is lawful to use cereal in sausage, that the Michigan Pure Food Law does not prohibit it and the commissioner is wrong in holding its use a violation of the law, and contends also that even if its use is in violation of the law the commissioner has gone beyond his official duty in threatening complainants' patrons and he should be stopped by the order of this court from threatening dealers of sausage with cereal with prosecution if they do not desist from selling the same.

The Michigan Pure Food Law in question was passed in 1895, and provides:

"That no person shall within this state manufacture for sale, have in his possession with intent to sell, offer or expose for sale, or sell, any article of food which is adulterated within the meaning of this act.

"The term food, as used herein, shall include all articles used for food or drink, or intended to be eaten or drank by man, whether simple, mixed or compound.

"An article shall be deemed to be adulterated within the meaning of this act: First, If any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of, or sold under

the name of another article; fifth, if it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or, in the case of milk, if it is the product of a diseased animal; sixth, if it is colored, coated, polished or powdered whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous or injurious to health: Provided, That nothing in this act shall prevent the coloring of pure butter: And provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definition fourth and seventh of this section."

The title of the act is:

"An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink."

Complainants' sausage having cereal and added water, has substances mixed with it which lower its quality, strength and purity as a meat product, cereal and water are substituted in part for meat, it is an imitation of an all meat sausage and sold under the name of sausage, which means an all-meat product, it is made to appear better and of greater value than it really is; that is, the cereal and added water in the sausage cannot be detected by ordinary vision and the article appears to be an all-meat sausage when in truth and fact it is not all meat, but is meat, flour and added water.

Cereal is used to cheapen the cost of making the product, to substitute flour for meat, it absorbs and holds large quantities of water and it acts as a binder and permits the use of cheap grades of meat and improves the appearance of such meats when used, making them appear better than they are, and it increases the profits.

The power of the legislature to enact pure food laws and define what shall constitute adulteration is beyond question.

Powell vs. Com., 127 U. S. 678.

Pure food laws are intended to protect the consumer, and not the least protection intended is against fraud and deception.

The public welfare, that is to guard against cheats, frauds and deception and thereby promote honesty, has always been and always should be one of the ends of good government.

Has the commissioner misconstrued his powers, and unjustly, or in violation of complainants' rights, condemned a practice resorted to by it in the making of sausage?

He has threatened to prosecute dealers selling sausage containing cereal if they do not desist.

The commissioner is but a creature of the law; he has no plenary powers, and like complainant and all others he must keep within the law.

The power of the commissioner rests upon the statute and the statute being specific in its provisions, leaves him no room for official discretion.

The statute defines with particularity what consti-

tutes an adulteration of food products and creates an official to see that its provisions are enforced.

What is meant by pure food?

The statute answers this by defining adulteration.

It was evidently the intention of the legislature, regardless of all existing definitions of adulteration, to define in the law itself what constitutes adulteration of food products in this state.

It may be of interest, however, to examine into the definition of adulteration outside of the legislative definition.

"The term adulteration is derived from the Latin, *adultero*, which in its various inflections signifies to defile, to debase, to corrupt, to sophisticate, to falsify, to counterfeit, etc.

"The objects of adulteration are four fold, namely, to increase the bulk or weight of the article, to improve its appearance, to give it a false strength or to rob it of its most valuable constituent.

"All of these adulterations are manifestly of a designedly fraudulent character, and therefore properly the subject of judicial inquiry."

Com. vs. Curry, 4 Penn. Superior Court, Rep. 360.

The legislative definition therefore does not differ from the well-established meaning of the term adulteration when applied to an article of food.

The federal law defines adulteration substantially like ours, and under that law all makers of sausage for interstate sale, if cereal is used in the product, are required to plainly mark the same, showing it to be sausage with cereal.

The police power of the federal government within its limits is no greater than that of the state government within its limits. In its regulation of interstate trade the federal government has required sausage with cereal to be marked and this must be because of the fact that the cereal in it is an adulteration.

In its regulation of health, the promotion of honesty and the prevention of deception, the state government requires sausage with cereal to be sold as such and not as pure sausage, because the use of cereal is an adulteration of a food product, a product requiring no cereal and to which cereal has been added to improve its appearance, lessen its cost to produce and increase the profits, all at the expense of the consumer, if sold as pure sausage and made possible because of the secrecy with which the practice has been carried on.

The purpose of a plain, sensible law ought not to be defeated by over nice definitions, or by effort at forced refinement until common sense is read out of the law.

The legislature evidently had in mind something subtle by way of deceit in the making and sale of food products, and to avoid hair-splitting efforts to fritter away the safeguard they intended, they defined adulteration, and their definition is my law.

But it is said that the pure food law, so far as it applies to the maker of a food product, is to be considered in this case from the commercial standpoint of sausage, and that no matter what sausage may have been formerly, yet if at the time of the passage of this act in 1895, commercial sausage then had and had had for some time cereal in its makeup, the legislative body is conclusively presumed to have known of that fact, and under the law as it is passed, the use of cereal in

commercial sausage cannot be declared to be an adulteration of a food product.

Members of the legislature are drawn from the people by popular choice, and intended to represent fairly the intelligence of the communities from whence they come. I cannot clothe them with powers of discernment beyond that of citizens of average intelligence. To hold that when they passed the law of 1895 they knew commercial sausage contained flour and added water and therefore the courts must except sausage from their definition of adulteration, would charge them with light upon the subject apparently possessed by none of their constituents and beyond the knowledge of most all lexicographers and with knowledge of the trade practice complainant is now so strenuously objecting to having publicly revealed.

Sausage is a well-known article of food, and it has commonly been understood to be a meat product and not a mixture of meat and cereal. It derived its name from its makers at a time when it was a home-made product and before it became a commercial product.

The packers of this country found sausage to be a common article of food and they made it for the trade and sold it under the name everyone understood. The consumers and the customers of the packers not so very many years ago made it themselves and therefore know how to make it.

To profit out of the name and the common understanding of the consumers, some of the commercial makers of sausage have retained the name because of the demand for that particular article of food, but they have changed the make-up of the product.

I cannot hold that it must be assumed the legislature had in mind when this act was passed commercial practices in the making of this food product and not the way everyone not in the secret supposed it was made, and that by a failure to specifically mention and condemn this article, the definition adopted by the legislature must not be made to apply to commercial practices.

If the legislature is assumed to have had information upon the subject of what constitutes sausage, then under the evidence in this case it is sensible to hold that the knowledge possessed by the legislative body was the knowledge possessed by the people themselves, and not knowledge possessed by a few who were endeavoring to keep the matter secret.

Had the members of the legislature gone to the dictionaries they would have found sausage defined to be chopped or minced meat, seasoned, and this definition would have been supported by the understanding of practically all of their constituents.

"The legislature intended that any particular product which differs from that which has hitherto been known under a certain name in being less valuable by reason of the abstraction of some ingredient, shall not be sold under that name. It must be given some name which will carry warning with it, which will prevent the public from being imposed upon."

Charge of Court in *Com. vs. Hunfal*, 4 Penn. Sup. Court, 310.

"In construing legislative language, it must be received not necessarily according to its etymological meaning, but according to its popular acceptance, and especially in the sense in which the legislature is accustomed to use the same words."

"It is the duty of the courts so to construe statutes as to meet the mischief and to advance the remedy,

and not to violate fundamental principles; to bring sense out of the words used and not to bring a sense into them, to give the words a reasonable construction."

"The sense given to particular words by our great lexicographers is always entitled to weight, yet where a word is general and common, due regard must be had to the circumstances. The term 'skimmed-milk' is not a technical one, and must be presumed to have been used in its known and common sense."

Com. vs. Hunfal.

By the means used in its making of sausage, the complainant in effect makes it possible to practice a fraud on the consumers in delivering to retail dealers for sale by them a cheaper article than its name imports, and this fraud, if permitted, in time must drive the honest dealer who will not stoop to the practice from the market.

Common knowledge has given sausage certain attributes, and everyone supposes he is informed upon what sausage is made of, but while it has been pretty thoroughly slandered, it has not been understood by the consumers to be a corn flour product to any extent.

Chopped meat, corn flour and water, seasoned with spices is probably as healthy as a pure sausage such as was known to the fathers and may be sold under its proper designation, but it cannot be passed over the counter and sold as sausage.

The trouble is not with the use of cereal in sausage, but the trouble is that the commissioner holds the seller must inform the customer at the retail counter that cereal is there, and therefore they are paying the price of meat for it.

The health properties of complainant's sausage with cereal and water may in the opinion of some be superior to an all meat product, but this does not help, for the legislature intended that sales of all articles of food for use by man should be so marked and sold, as to not leave in doubt questions affecting their strength, quality or purity, and to prohibit sales being made under a name, the use of which makes the article appear better or of greater value than it really is. It is claimed that to compel commercial sausage to be truthfully labeled would result in the confiscation of complainant's business in this state, and be in violation of the 14th amendment to the federal constitution.

This constitutional provision does not protect manufacturers at the expense of the people, neither does it interfere with the police power of the state legislature in the promotion of the public health, the fostering of honesty and the prevention of deception.

If an article of food cannot be sold for what it is, but must be sold under another name in order to get people to buy it, and if the result of a law requiring the truth to be told is in violation of the constitution, then the constitutional provision means something different than has always been understood. But the amendment means no such thing.

"The 14th amendment of the constitution was not designed to interfere with the exercise of the police power by the state for the protection of health, the prevention of fraud and the preservation of the public morals."

Powell vs. Penn., 127 U. S. 678.

The police power is one of regulation, having the public interests and the most complete enjoyment of rights by all. What right has complainant to add

cereal and water to seasoned chopped meat and sell it for pure sausage?

It contends in effect that sausage has not been pure for years, and the practice of using cereal and water must now be considered lawful.

It is lawful to use cereal and water in sausage, but it is not lawful to sell it as pure sausage. The law recognizes the right of complainant to make any healthful food product it wants to and to sell it anywhere, but the law does not recognize the right to use a name to conceal a fraud.

The law must consider the public interests and the most complete enjoyment of rights by all, and therefore while it permits one man to make sausage as he pleases so long as he employs nothing harmful to health, yet it does not, and ought not, to permit him to sell it under a name for the purpose of working a fraud upon the purchaser.

The complainant cannot complain if the law lets it do as it pleases short of practicing deceit. It has no right to insist that the state leave it to individuals to discover its practices and refuse its products.

The state has seen fit to intervene between complainant's practice and its consummation, and this the state has a right to do and in the interests of good government ought to do.

The attorney-general claims that all dictionaries define sausage to be a product consisting of meat and seasoning and that flour is nowhere mentioned. In this he is in error, but his error is excusable for it has taken much search to find any definition other than he claims. The exception to the general definition is so obscure and unrecognized by authority, and the common one so in accord with the common understanding that there need to be no difficulty in determining what sausage should be in fact.

The consumer understands that sausage is chopped or minced meat seasoned, but complainant says such a person does not know and is not in a position to know what sausage is.

It is probable he does not know what complainant's sausage is, and this very ignorance on his part makes it possible for complainant to add cereal and water to chopped or minced meat and sell it to him in the belief on his part that he knows what he is getting.

It was said at the hearing that chopped meat seasoned described Hamburg steak and not sausage. It used to describe sausage, and will again if the pure food law is enforced. It does not describe the sausage made by complainant because it leaves out the filler of cereal and water.

The complainant claims there is a difference between commercial sausage and sausage known as such by the consumers. It is partly right.

There is a difference between commercial sausage as made by complainant and sausage, and this is the very thing the commissioner insists the people have a right to know, and with such knowledge buy it or not as they see fit.

It was claimed at the hearing that people prefer sausage with cereal in it. If that is true, then complainant ought to welcome defendant's effort in behalf of publicity of the use of cereal, and not ask the court to restrain him in his effort to compel sellers to let buyers know what they are getting when they buy sausage.

The testimony of many sausage makers in this and other states has been submitted to the court, and the

practice of using cereal in commercial sausage seems to be widespread, but not commonly known to the consumers of sausage.

Potato flour and bread crumbs have been used in some parts of Germany for many years, and the practice was brought to this country to some extent probably half a century ago, and has grown until lately it has become quite a factor in the making of commercial sausage.

I do not understand that a practice, even though it had been resorted to for many years, can fail to fall within the provisions of a law intended to prevent deception.

It is not now understood commonly, and certainly was not when the act of 1895 was passed, that manufacturers of sausage used cereal, in fact one of the complaints made by complainant is that defendant has injured its business in Michigan, by reason of his threats and the publicity given to complainant's use of cereal in the making of sausage.

It is claimed by complainant that sausage is a mixture or compound, and falls therefore within the proviso of the pure food act and cannot be declared adulterated if it contains cereal and added water.

To call an adulterated article a mixture or compound and exempt it from the law under the proviso would open a way for the escape of all long practiced adulterations, and render the whole law a cover for adulteration, rather than a truth felling attempt at exposure.

The United States Department of Agriculture, Bureau of Animal Industry, on September 12, 1906, in a pamphlet concerning trade labels under the Federal Meat Inspection Law and regulations, gave voice to some of the tentative rulings of the Pure Food Commission under the pure food law and under the head of mixtures and compounds stated:

"Mixtures and Compounds: Mixtures, when the name plainly indicates a mixture, such as sausage, hash, mince, etc., need not be marked 'Compound.' Other mixtures not so indicated by their names must be marked 'Compound.'"

But it is significant that sausage is defined in the same pamphlet as follows:

"Sausages and Chopped Meats: The word 'Sausage' without a prefix indicating the species of animal is considered to be a mixture of minced or chopped meats, with or without spices. If any species of animal is indicated, as 'Pork Sausage,' the sausage must be wholly made from the meat of that species. If any flour or other cereal is used, the label must so state. If any other meat product is added the label must so state: for example, 'Pork and Beef Sausage,' 'Pork, Beef and Flour' (or other cereal) or 'Pork and Beef Sausage, Cereal Added.'"

And at the conclusion is found this: "Manufacturers are warned that the above rulings do not exempt them from the enforcement of state laws."

Having in mind our statute, I shall hold that sausage does not fall within the proviso under the head of a mixture or compound.

I quote with approval the language of the attorney-general's department of the state of Pennsylvania in Stephens & Widlar, 5th Penn. Dist. Rep., p. 104:

"To Hon. Levi Wells, Dairy and Food Commissioner:

"Your communication of recent date, enclosing letter of Stephens & Widlar, of Cleveland, Ohio, asking

whether certain labels submitted to your department are sufficient to protect them in the sale of coffee as a compound, which contains chickory, rye, wheat, peas and other cereals or products, under the proviso to section 3 of the act of June 26th, 1895, P. L. 317, has been received.

"The question involved is one of great importance in the construction of the provisions of the pure food law. As I am informed, the above named firm imports teas, coffees, and spices, and in order to make a cheaper grade of coffee, a certain amount of chickory, wheat, rye, peas, etc., is dried, browned and ground with pure coffee. The mixture thus prepared is sold on the market under a label "Best Rio," "Prime Rio," "French Rio," or "Broken Java." It is earnestly contended that the proviso to section 3 of the act above referred to gives them the right to sell such a mixture or compound without incurring the penalties of the law. Acting upon this idea, certain labels, containing the words "Coffee Compound," and showing that it is a mixture of prime coffee, English chickory and choice grain, are exhibited for the purpose of securing your approval, so that this "Coffee Compound" may be sold in our state without interference from those in charge of the enforcement of this law.

"I have no hesitancy in saying that, if such a preparation can be sold under the law as coffee, the label is sufficient under the proviso above named. But I am of the opinion that the proviso does not cover an article of food known as 'Coffee Compound' such as is intended to be sold by this firm, and that any manufacture for sale, offering for sale, or selling of the same as an article of food, would be a violation of the very letter and spirit of the act referred to.

"Section 3 of the Pure Food Law defines what an adulteration is within the meaning of the act of assembly. Any article of food shall be considered adulterated:

"1. If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity. 2. If any inferior or cheaper substance or substances have been substituted, wholly or in part, for it. 3. If any valuable or necessary constituent or ingredient has been, wholly or in part, abstracted from it.' These are but three of the seven kinds of adulterations named in the act. Either one of these three definitions is sufficient to brand the 'Coffee Compound' offered for sale by the above named firm, as an adulteration. The addition of chickory, wheat, rye, or peas to coffee, depreciates its 'quality, strength and purity.' It is the substitution, in part, of a cheaper substance, to take the place of coffee, and it could very properly be said that in such a compound, a valuable constituent has been in part abstracted, for part of the coffee is taken away, and a cereal substituted therefor. If the 'quality, strength or purity' of coffee can be thus depreciated under the authority of the proviso to section 3 of the above act, then is the pure food law a legislative dream. If this can be done, then any adulterated article could be sold by simply marking it a compound or mixture. All-spice, ground with buckwheat hulls or cinnamon with hemlock bark would then be labeled 'Compound,' and sold in the open markets as such. Such a construction would render the act of 1895 a nullity.

"The pure food law was intended to provide against the adulteration of articles of food and to prevent deception and fraud in the sale thereof. The legislation

was much needed, and it should be enforced in such a way as to give the greatest security to the public consistent with the requirements of the act. It is true that the proviso to section 3, above mentioned, says, that 'It shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food.' It is difficult to give any general definition of an 'ordinary article of food' that would apply in all cases. It is, however, a fair presumption that no article of food, adulterated within the meaning of the definitions of section 3, is intended to be exempted by the proviso. The proviso is designed to cover a different class of cases. Anyone relying upon the proviso to exempt him from the penalties of the law, takes upon himself the laboring oar, and the burden of proof is upon him to make out the exemption claimed. That it is an 'ordinary article of food' within the meaning of the proviso, must depend upon the facts in each particular case. I am clearly of opinion, however, that coffee, adulterated by the addition of chickory, wheat, rye or peas, is not an 'ordinary article of food,' intended to be exempted from the penalties of the law. On the other hand, it is an adulteration and cannot be sold without offending against the provisions of the pure food law."

The pure food law of Pennsylvania and under consideration by the attorney-general, so far as it defines adulteration, was like ours.

If it is not an adulteration under our law to add from one to ten per cent of cereal and all the water it will take up to sausage and call it and sell it for pure sausage, then the practice does not fall within the law at all and as much cereal and water may be added as the conscience of the maker will permit and an all meat sausage will be a thing of the past.

The term sausage means an all-meat product, and does not describe cereal and water, and everyone, the manufacturers included, know this, and the common understanding of the consumers as to what sausage is, has led the makers to retain the name, and a desire for profit has led to the use of cereal and added water.

It is claimed that cereal is not added to sausage for the purpose of making it a cheaper product of manufacture but is added to improve the appearance; the sausage is more easily put in the casings and to hold the juices of the meat and make the same more palatable.

I don't care what the purpose is, if the result is in violation of our pure food law. I am not examining now into the purpose, but if the result of the practice is a deception upon the public, and leads them to pay the price of a genuine article for an article that is less in value because of the addition of cereal to it, then that practice must stop.

Complainant can and does make sausage without cereal. Cereal cheapens the product. It permits water to be added.

Armour & Company buy corn flour in carload lots at about three cents per pound. Its annual output of sausage is from thirty-five to forty million pounds. It has about one thousand customers in Michigan and markets here about one million pounds of sausage annually. From two to ten per cent of cereal is used in making this sausage.

One Michigan sausage maker paid four cents per pound for binder and used six pounds of it and fifteen pounds of water to one hundred pounds of meat, so that for twenty-four cents he was able to increase his

100 pounds of meat to 121 pounds of sausage. That this increases the profit and the consumer gets some water and binder instead of all meat and pays the price of all meat for it, goes without saying.

Another Michigan sausage maker very frankly said that he used flour to absorb water. One witness makes from eight to ten million pounds of sausage per year, using from four to five per cent of flour and about eight per cent of water. It follows that from twelve to thirteen per cent of the product is flour and water, or in other words, about one pound in every eight not meat at all.

It is claimed that water must be added to sausage in its making. It is undoubtedly true that the moisture in meat will evaporate both by exposure and chopping of it into sausage and it is proper to add water to the chopped meat to bring it to the proper consistency for stuffing it into the casings, but to add flour because of flour's water absorbing capacity produces an article falling squarely within the prohibition of the Michigan Pure Food Law.

A binder cannot be used without adding water. The natural moisture in the meat will not permit the use of a binder, but water must be added, and in advertising some of the binders its chief recommendation to the purchaser is its power to absorb and hold water.

Cereal and all other binders are cheaper than meat, but the water, of course, is cheaper than cereal but when they are mixed they are sold to the consumer as meat.

The law against the adulteration of food products came because of adulteration, and can be and should be so applied that its ends and purposes become effective.

Adulteration existing at the time of its passage was not sanctioned, but its continuance forbidden.

Is it possible that a practice of adulteration under a name implying no adulteration may be carried on so long that it rises superior to the law and becomes sanctified, no matter how much of a cheat and deception it has proven?

I, for one, cannot accede to any such doctrine for the law is not so powerless that it cannot stop practices calculated to cheat and deceive.

A commercial food product may or may not come within the law condemning adulteration. If it is a new product under an old name and the new ingredients foreign to the old product are added to cheapen its production, and the old name is retained to cover the cheat, then it is an adulteration. If it is a new product with a new name, then it is distinctive in character and cannot be considered an adulteration because it is as it always has been from its inception.

There was a time when sausage did not contain cereal. Some of it does not now. When cereal was added it was an adulteration in fact, if not in law, and now it is an adulteration in fact and in law.

The purpose of cereal and added water is to cheapen the product. Sausage can be made without cereal by complainant and all others. If the name is that given to a new product then the product is to be proved and the name is of but little consequence except it be calculated to deceive, but if the name itself is descriptive of a well-known and common article of food, then the article must keep to the name and its make-up and if there is a change in its make-up so that the same is deceptive rather than descriptive, the thing is adulterated, and that is what our pure food law means.

The federal law requires complainant in the sale of its sausage containing cereal to stamp each package sold as sausage with cereal. The relations then between complainant and its patrons are carried on with full knowledge of the use of cereal in the sausage.

The federal law, however, has nothing whatever to do with our pure food law. It stops where it ought to, our law begins where it ought, and requires the local seller to impart to the local buyer the fact that he is not getting an all meat product.

No local dealer has asked this court to restrain the food commissioner from requiring notice of an adulteration of sausage to be given consumers, but many local dealers are interested in the success of complainant in this suit, because complainant has informed them that if they sell sausage with cereal in Michigan, it will stand by them and fight the matter of their rights out in the court.

This is the fight.

The complainant makes about one hundred and forty varieties of sausage, some differing in seasoning only, while others bear no resemblance to pork, bologna or frankfurter sausage.

Some of the sausage made for a particular trade contains a large percentage of cereal, and undoubtedly those who want it understand its make-up.

This opinion might well be limited to the common sausages known as pork, bologna and frankfurters, because the proof shows the acts of the servants of the defendant complained of relate to the sale of such sausages and not to a cereal sausage made for a small number of people who undoubtedly know what they are getting.

It is contended that the court should restrain the defendant from threatening dealers with prosecution under the Pure Food Law because under the law the commissioner has no such power delegated to him, but is limited to bringing prosecutions in cases of violations.

The complainant in this case in its bill has stated it makes and sells in Michigan an adulterated article of food, and I am not disposed to stop the commissioner or anyone else from warning people in this state that it is a violation of the Pure Food Laws of the state to sell sausage containing cereal and added water.

The bill is dismissed.

DECISION OF JUDGE SMITH.

Second Pennsylvania Food Law Test Case Decides Law Only Partly Bad.

OPINION.

October 3, 1908.

The above suit comes into court on an appeal by the defendants from the judgment of a justice of the peace in favor of the commonwealth and against the defendants for \$60 and costs, being the penalty prescribed for violation of the Pure Food Act of June 1, 1907. The case being regularly on the September trial list, was called, when parties agreed upon the facts and submitted to the court a case stated in the nature of a special verdict, and on September 28, 1908, the law applicable to these facts as contended for respectively by counsel was fully argued orally and by submission of briefs.

The defendants are retail grocers of DuBois Borough, Clearfield County, Pennsylvania, who sold

"evaporated peaches," which being submitted to chemical analysis showed the presence of a preservative called sulphur dioxide. The following paragraphs of the case stated are quoted verbatim, because they contain the essential facts:

"Third. That the peaches sold as aforesaid by the defendant were taken from the box in which they were purchased by the defendant, which said box had a label thereon containing the following directions and instructions: 'For the purpose of shipment the peaches contained herein are preserved by the external application of sulphur fumes which are removable by maceration or soaking in water.' Said peaches were so preserved and the preservative could have been removed by soaking in water. No such label appeared upon the package in which the peaches sold were wrapped or contained when delivered to purchaser. Fourth. That the analysis made as aforesaid of the said peaches was made without first submitting the same to the process of maceration as directed on label upon said box. Fifth. Sulphur dioxide is not native in peaches, but is added as a preservative and is injurious to health. Sixth. The rules and regulations promulgated for the enforcement of the Act of Congress, approved June 30, 1906, known as 'The Food and Drugs Act,' permitted the use of sulphur dioxide as a preservative in peaches and the amount found in the peaches in this case is less than the amount allowed by such rules and regulations. Seventh. The defendants purchased said peaches from a dealer residing outside of the state of Pennsylvania, and received a guaranty in writing, signed by the vendor who resides in the United States, to the effect that the said peaches were not adulterated or misbranded within the meaning of the Food and Drugs Act of June 30, 1906, enacted by the Senate and House of Representatives of the United States of America in Congress assembled, and the said peaches were sold and delivered to the defendant in a sealed package. The said guaranty contained the name and address of the vendor. Eighth. The commonwealth contending that the peaches in question were adulterated within the meaning of paragraph 5 of the Fifth Section of the act of June 1, 1907, P. L. 386, brought a suit for the recovery of the penalty provided in said act, before F. G. Chorpening, a justice of the peace of the borough of Clearfield, Pennsylvania, who after hearing entered judgment against the defendants for the sum of \$60 and costs, from which said judgment an appeal was allowed by the Court of Common Pleas of Clearfield County after hearing upon the question of the allowance of said appeal. Ninth. All the formalities which may be conditions precedent to bringing said suit under the provisions of said act of June 1, 1907, have been complied with."

The defendants, by their counsel, contend that the above admitted facts disclose two defenses entitling the defendants to a reversal of the judgment entered by the justice against them. First. That the admitted facts bring the defendants squarely within the proviso clauses of the fifth paragraph of Section 5 of the said Pure Food Act, which reads as follows:

"Section 5. That for the purposes of this act an article shall be deemed to be adulterated—in the case of food: First. If any substance has been mixed and packed with it so as to reduce or lower, or injuriously affect its quality or strength. Second. If any substance has been substituted, wholly or in part, for the

article. Third. If any valuable constituent of the article has been wholly or in part abstracted. Fourth. If it be mixed, colored, powdered, coated, or stained in a manner whereby damage or inferiority is concealed. Fifth. If it contains any added substance or ingredient which is poisonous or injurious to health: Provided, however, that no action shall be brought or sustained for violation of the provisions of this section when the article alleged to be adulterated is not adulterated within the meaning of the 'Food and Drugs Act of June 30, 1906, enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, and the rules and regulations promulgated, from time to time, for the enforcement of the same: And provided, further, that when, in the preparation of food products for shipment, they are preserved by any external application, applied in such manner that the preservative is necessarily removed mechanically, or by maceration in water, or otherwise, and directions for the removal of said preservative shall be printed on the covering of the package, the provisions of this act shall be construed as applying only when said products are ready for consumption."

Clearly and admittedly, if this proviso is operative, these defendants are not guilty of any offense under this law and are entitled to a judgment in their favor. In the construction of this act, therefore, we have the anomaly of the commonwealth contending for the unconstitutionality of at least a portion of the act in order to maintain their action, and of the defendants contending for the constitutionality of the act under and by virtue of which they are being prosecuted.

Is then the first proviso clause of paragraph 5 constitutional? As will be seen by reading, it in effect embodies and enacts the provisions of the National "Food and Drugs Act" by reference to a generalized name only and not even by its title, although, of course, it gives the date of passage. Moreover this proviso clause seeks to adopt and make effective as a part of paragraph 5 the "rules and regulations promulgated, from time to time, for the enforcement" of the National "Food and Drugs Act." It is contended that this method of adopting and enacting an entire Act of Congress and of the rules and regulations of a commission for enforcing said act into our act violates the restrictions imposed upon the legislature by the constitution, in Article III, Section 1, Article III, Section 3, and Article III, Section 6. These provisions of the constitution are clearly intended to require that every law shall be complete in itself and that notice of its provisions shall be given in the title not only to the members of the legislature, but to the public. It is not necessary for us to decide that this proviso clause does offend against the provisions of Article III, Sections 1 and 3, for, to our mind, it is a clear violation of Section 6 of Article III, which provides that "no law shall be revised, amended, extended or conferred by reference to its title only, but so much thereof as is revised, amended, extended or conferred shall be re-enacted and published at length." It has never yet been held that a former act of assembly in Pennsylvania could be later embodied into an act of assembly by reference to its title only.

What then is sacred about an act of Congress, enabling it to override the provisions of the Pennsylvania constitution? It seems to us that an act of Congress should not have greater force than our own acts of assembly in matters of constitutional construction.

But in this case not even the title of the national act is given. It is merely known or phrased as the "Food and Drugs Act," either in the rules and regulations of the department enforcing the same or in contemporary writings as a proper designation of the act. The title of the national act is "An act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines and liquors, and for regulating traffic therein, and for other purposes," which became a law June 30, 1906, and went into effect January 1, 1907. It will thus be seen that the use of the words "Food and Drugs Act" in our act of assembly is merely a short phraseology designating the national act. The purpose of the legislature in the passage of the Pennsylvania act is apparent. It was doubtless intended to make this paragraph uniform with the provisions of the national act and except for the insertion of the first proviso clause is almost a literal copy of the same paragraph in the national act. Under our constitution we believe that the uniformity intended to be secured could only have been done by re-enacting and publishing at length the parts to be adopted. In effect the provisions of the paragraph was an effort to extend and confer the provisions of the national act into this act by its trade name only and not even by its legitimate title. But this proviso clause goes further and seeks to embody the "rules and regulations promulgated from time to time" for the enforcement of the national act. A rule and regulation of to-day may be abolished to-morrow by the National Commission, thus rendering the law very uncertain. As is well said by Judge Bell, of Blair County, in *Commonwealth vs. Kephart*, decided August 20, 1908, "to allow the law to be determined by such bulletins would be to render confusion twice confounded." We agree with the opinion of Judge Bell in said case fully as to the proviso clause of paragraph 5 of Section 5, and deem it unnecessary to repeat either his logic or to cite the authorities on which he relied. Without further elaboration, we conclude that this first proviso clause is unconstitutional and void.

If we are right in this opinion, what is the effect of striking out the proviso (a) upon the paragraph in which it occurs, (b) upon the whole section, and (c) upon the whole act? Judge Bell, in his opinion in the case just cited, *Commonwealth vs. Kephart*, declares that the unconstitutionality of this proviso destroys the entire act, basing this opinion on two grounds. First, that the proviso clause is unconstitutional and that the whole act shows that without this proviso clause the entire act would not have been passed; and second, that it discriminates against dealers in Pennsylvania. We do not fully agree with Judge Bell in this opinion and think it too sweeping. In our judgment, with the first proviso clause decided unconstitutional, paragraph 5, Section 5, only is destroyed and that the balance of the act is operative. There is, of course, room for contention that with the proviso clause decided unconstitutional, the whole section would have to go, because this proviso clause uses the language "that no action shall be brought or sustained for violation of the provisions of this section." We think the word "section" however, can fairly be said to mean the "paragraph" or "subdivision" in which it appears. The proviso is made a part of paragraph 5 only. The section has six paragraphs, one following No. 5. It could not fairly have been intended by the legislature that this proviso clause included the entire section or it would

have followed the entire section. We think, therefore, that it can fairly be interpreted that the legislature by this proviso intended to control only the affirmative portion of paragraph 6 of Section 5 with reference to that particular species, manner or method of adulteration, and if said proviso is abortive by reason of a violation of our constitutional restriction only, the paragraph should go out with it leaving the balance of the section and act operative. The affirmative part of paragraph 5 is, the re-enactment of the prior Pure Food Act of 1895, and it is clear that the legislature in so re-enacting in conjunction with the proviso clause intended to limit and control some of the harsh features of the former act and that it would not have been passed as it is without such limitation. It follows, therefore, from this conclusion with reference to paragraph 5 that the operative or affirmative clause of said paragraph will fail and that the defendant is entitled to a reversal of the judgment for this reason alone.

The second defense set up by the defendants under the admitted facts is, that they have a guaranty to the effect that the said evaporated peaches were not adulterated within the meaning of the National Food and Drugs Act, and that this guaranty bars a prosecution under Section 8 of our Pennsylvania act. The language of Section 8 is, "no prosecution shall be sustained under the provisions of this act, for the selling or offering for sale, or having possession with intent to sell, any article or goods, as defined herein, when the same is found to be adulterated or misbranded within the meaning of this act, when the accused can establish a guaranty, signed by the person residing in the United States from whom such article was purchased, to the effect that the same is not adulterated or misbranded within the meaning of this act, designating it, or within the meaning of the Food and Drugs Act, June 30, 1906, enacted by the Senate and House of Representatives of the United States of America in Congress assembled;" commonwealth's counsel contend that the word "or" should read "and," and that a guaranty to be effective and give immunity must not only state that the article is not adulterated or misbranded within the meaning of the National Food Act, but also within the meaning of our Pennsylvania act. In other words, commonwealth's counsel contend that a guaranty under the national act alone is not sufficient to relieve a defendant. From a study of the entire section it is clear, however, that this contention is not correct. The legislature meant just what it said when they use the word "or," because they have provided for such contingency in following clauses of the section. The concluding clause of the section is, "When the examination or analysis, herein provided for, shows that any of the provisions of this act have been violated, and the person relieved from prosecution under this section, by the production of a guaranty produced by such person residing outside of this state, then the dairy and food commissioner shall report such fact to the secretary of agriculture of the United States, or the proper officers appointed for the enforcement of the Act of Congress approved June 30, 1906, known as the Food and Drugs Act." There is another provision to the effect that a dealer who continues to sell after written notice by the dairy and food commissioner that such article is adulterated or misbranded within the meaning of this act, his guaranty will not operate as a defense. The section also gives the dealer a right of action against the guarantor. The entire section taken together constitutes a fairly clear

guide as to what is and what is not an offense under the act and as to just what kind of guaranty will relieve a dealer from responsibility. There are, of course, cases where acts of assembly have been construed in which the word "and" has been substituted for the word "or," but all of such cases are clear that such was the meaning of the legislature. In this case the very opposite is clear. The legislature intended just what they said, as is shown by a study of the entire section. This may make the act abortive or cripple the action of the pure food department of the state of Pennsylvania, but the fault is with the legislature and to that body they must go for remedy. It follows, therefore, that as the facts in this case are that these defendants had a guaranty which complied with the language of Section 8, they are relieved from prosecution.

Other questions are raised by counsel on both sides in this case, but we think that the two points of defense on which we have based the disposition of this case are the vital points to be considered. The prosecution is concededly brought under paragraph 5 of Section 5, and if we are right in our contention the whole section falls and leaves the commonwealth without anything on which to base their action. It is conceded that the defendants have a guaranty which complies with the language of Section 8. For both reasons the action by the commonwealth cannot be maintained and the judgment heretofore entered against the defendants must be reversed.

Now, October 3, 1908, the judgment of the justice of the peace in entering judgment in the above stated case against the defendants and in favor of the commonwealth is hereby reversed and judgment is now entered for the defendants.

By the Court,

ALLISON O. SMITH, P. J.

UNITED STATES TREASURY DECISIONS GENERAL APPRAISERS

INTERNAL REVENUE.

(T. D. 1425.)

Marking spirits.

Suit to enjoin the collector and the internal-revenue gaugers from marking rectified spirits "imitation whisky."—Decision of Judge Humphrey denying application for preliminary injunction and sustaining the Government.

Treasury Department.

Office of Commissioner of Internal Revenue.

Washington, D. C., October 9, 1908.

The appended decision in the case of Woolner & Co. et al. v. Percival G. Rennick, collector, et al. in the United States Circuit Court, southern district of Illinois, is published for the information of all concerned.

JOHN G. CAPERS, *Commissioner.*

Circuit Court of the United States, Southern District of Illinois, Northern Division.

Woolner & Co. et al. v. Percival G. Rennick,
Collector, et al.

BILL FOR INJUNCTION.

HUMPHREY, J.: The present application is for a

preliminary injunction restraining certain officers and agents of the Internal Revenue Department from marking as "imitation whisky" potable distilled spirits from grain, of approximately 100 proof, which have been rectified so as to remove most of the fusel oil and aldehydes.

The complainants are engaged in the business of rectifying distilled spirits and the defendants are acting under printed regulations promulgated May 5, 1908, by the Commissioner of Internal Revenue, as follows:

"4. Alcohol, commercial alcohol or high wines which have been manipulated by the aid of artificial flavors, colors or extracts, or otherwise, so as to resemble some particular kind of potable spirits, will be marked with the name of such spirits preceded by the word 'imitation,' as, for example, 'imitation whisky.'"

The contention of complainants is:

First. That the regulation of May 5, 1908, is in violation of Section 3449 of the Revised Statutes; that the product in question has, for a long time, been known to the trade as whisky; that the complainants as owners of same would be prohibited by Section 3449 from shipping it under any other name than whisky, "that being the name known to the trade," and therefore the commissioner has no power to require a mark or brand which does not conform to the trade name.

Second. That the regulation is unreasonable and therefore illegal.

Third. That the injunction should issue under the rule known as balance of convenience.

Section 3449 is not in point. That section was passed by Congress to prevent frauds on the revenue and to assist revenue officers in discovering such frauds. It has no reference whatever to marks or brands placed upon packages by government officers. The authorities are numerous and clear upon this question.

The argument on behalf of complainants that the new regulation is unreasonable, and therefore void, raises the real question in the case.

Powers requiring judgment and discretion when conferred by law upon executive officers must be exercised with reason. When found to be clearly reasonable, the courts will not interfere with officers acting under discretionary powers. When found to be clearly unreasonable such action will be held void.

That there is a product called *whisky*, and also a product called *imitation whisky* the law itself clearly contemplates, and Section 3244, in defining what is meant by the business of rectifying, denominates the maker of imitation whisky and other imitation liquors as a rectifier, and in passing upon the question whether the regulation of May 5, 1908, is reasonable or unreasonable, it is necessary to determine the fact whether the commissioner in that regulation has correctly defined an imitation whisky. That counsel have regarded this as the crucial question in the case is evidenced by the fact that both parties have presented to the court numerous affidavits upon the subject. Complainants present 69 of such affidavits and the defendants a lesser number.

These affidavits are from rectifiers and distillers, members of the wholesale and retail liquor trade and scientists and chemists of high rank. They do not agree. Indeed, it may be said that some of them

present diametrically opposite views more or less elaborately stated.

In brief, the affidavits for complainants tend to support the proposition that a distilled spirit from grain reduced by water to potable strength from which most of the fusel oil has been removed by rectification is whisky and that all distilled spirits from grain are "like substances," without reference to differences in their percentage of alcohol or of secondary products present therein.

The affidavits presented for defendants tend to support the view that whisky is a product made by the proper distilling of a fermented mash of grain with such care and at such low temperature as to retain the congeneric ingredients of the grain, aged under a normal temperature for not less than four years in charred oak casks. Thus broadly in statement do the chemists disagree. They are more or less persuasive to the court according to the soundness of scientific reasoning given in support of their statements.

The convincing weight of testimony on this subject, given by such men as Professors Frear of Pennsylvania, Scovill of Kentucky, Tolman and Adams of Washington, D. C., Shepherd of South Dakota, Jenkins of Maine, Fischer of Wisconsin, and many other state analysts and chemists of repute, is to the effect that neutral spirits reduced by water to potable strength, from which most of the fusel oil has been removed, is not a like substance with whisky. Among the various reasons given for this conclusion are the following:

Whisky can only be made from sound grain, while neutral spirits can be made from moldy, heated, or unsound grain, or from various other substances, as fruits or vegetables.

Whisky is made at a lower temperature, say 150 to 155 degrees, so as to retain in the distillate the congeneric properties of the grain, the oil, the flavor, the higher alcohols and aldehydes, the esters, acids, and salts, which, when modified by further treatment, give to whisky its desirable potable character, a character which alcohol never possesses.

Neutral spirits are made at a very high temperature for the very purpose of carrying off, so far as possible to do so; every property of the distillate, except alcohol and water.

Whisky is aged and matured for not less than four years in charred oak barrels.

Neutral spirits require no aging, but may pass immediately into consumption.

The maturing of the product in charred barrels modifies and corrects its raw, biting taste. The action of the congeneric properties of the grain so retained in the liquor on each other and the action of the charred wood on all by the lapse of years results in a flavor, an aroma, a color, a blending of inherent constituents resulting in a beverage agreeable to the sight, to the smell, and to the taste.

In neutral spirits the name signifies the character. There is neither taste, smell, nor color, and no amount of aging in charred or uncharred barrels will change it without the addition of foreign matter.

The time required for maturing whisky resulting in a loss of perhaps 30 per cent in quantity by evaporation and absorption adds greatly to the expense of making it over neutral spirits which require no maturing and suffer no loss of quantity thereby.

The record also shows that diluted spirits treated with artificial coloring matter and essences are not

sold to the trade as such, but are always presented under such labels, terms, and descriptions as impart age and maturity, and which the consumer identifies with the genuine product whisky. The regulation is in all respects reasonable and is therefore legal.

The fact that this practice had, to some extent, prevailed for many years does not show in the complainants any right which the court should protect. It shows rather that the Commissioner of Internal Revenue has been tardy in promulgating a regulation which he had legal power to enforce, even before Congress gave emphasis to the subject by the enactment of the food and drugs act.

The preliminary injunction will be denied.

NOTE.—United States Attorney Northcott writes to the commissioner as follows:

"I notice that some of the newspapers construe the decision of Judge Humphrey in the case of Woolner Distilling Company as a criticism upon your department.

"In a conversation with Judge Humphrey, he authorizes me to say that no criticism on your department was intended by the decision, but, on the contrary, the department was sustained on every proposition."

INTERNAL REVENUE.

(T. D. 1417.)

Amendatory regulation in regard to labeling of renovated butter.

Regulation 15 of Regulations 9, revised July, 1907, concerning renovated butter, amended to permit the covering with cloth, jute, or burlap of original packages of this product for export only, when such coverings are properly marked and branded.

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., September 22, 1908.

The following regulation amending and superseding Regulation 15 of Internal-Revenue Regulations 9, revised July, 1907, and of Bureau of Animal Industry Order 147, dated July 11, 1907, and issued July 25, 1907, in regard to renovated butter, is issued by the Commissioner of Internal Revenue with the approval of the Secretary of the Treasury and the Secretary of Agriculture jointly, and will be effective on and after October 1, 1908.

ROBT. WILLIAMS, JR.,

Acting Commissioner.

Regulation 15. Whenever any manufacturer's package of renovated butter is empty it shall be the duty of the person who removes the contents thereof to destroy utterly the tax-paid stamp on such empty package. Any person having in his possession empty renovated butter packages the tax-paid stamps on which have not been destroyed will be liable to a heavy penalty.

Original packages of renovated butter for export may be covered with cloth, jute, or burlap, provided that there be stenciled on the covering of the package, in black letters on a white background, the words "Renovated Butter," in one or two lines, in full-faced, Gothic letters not less than 1 inch square. The words "For export only" must appear in one line 1 inch below the words "Renovated Butter," in full-faced Gothic letters not less than three-eighths of an inch square.

These markings are to be the only markings on one side or surface of the package.

Where possible, inspection will be made before the outer covering is put on the packages. If, however, inspection be necessary after the outer coverings have been placed on the packages, the exporter, or his agent, will be required to remove the outer covering from any or all packages designated by the inspector.

Nothing in this regulation shall be deemed to change or dispense with the requirement of regulation 25 hereof in any way.

ROBT. WILLIAMS, JR.,

Acting Commissioner of Internal Revenue.

Approved:

L. A. COOLIDGE, Acting Secretary of the Treasury.

W. M. HAYS, Acting Secretary of Agriculture.

Washington, D. C., September 14, 1908.

(T. D. 1418.)

Special tax—Rectifier.

The presence of a filter, sufficiently complex to be termed an apparatus for the refining of distilled spirits, on the premises of a wholesale or retail liquor dealer, for whatever use intended, constitutes such dealer a rectifier of spirits and subject to special tax as such under the provisions of section 3244, Revised Statutes.

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., September 23, 1908.

Sir: Your letter of the 8th instant was duly received, and has been given very careful consideration.

The question involved is as to whether the presence of a filter on the premises of a wholesale liquor dealer who handles no distilled spirits whatever, but who pays special tax as wholesale liquor dealer to cover sales of wines, such filter being used exclusively for clarifying wines or removing the sediment therefrom, constitutes such wholesale liquor dealer a rectifier under the provisions of section 3244.

Your letter is in reply to one from this office, dated August 28, 1908, in which you were advised that—

This office holds that such filters as described are complex enough to be regarded as "apparatus for the refining of distilled spirits," within the meaning of the law, and their presence on the premises of a wholesale liquor dealer subjects such dealer to special tax as a rectifier.

On March 3, 1898, this matter was decided in a letter to Collector Coyne, first district of Illinois. In that letter the collector was advised as follows:

Relative to this matter you are informed that this office regards a filter of the kind above described as an "apparatus for the purpose of refining in any manner distilled spirits," the presence of which on the premises of a wholesale or retail liquor dealer constitutes such dealer a rectifier under the third subdivision of section 3244, Revised Statutes, as amended.

The same question came before the office in 1899, and on May 4 of that year a letter was addressed to an attorney, in which the right of a distiller to allow a Loew filter in his bottling establishment under authority conferred by the act of March 3, 1897, was conceded, but the presence of a filter on the premises of a wholesale liquor dealer was held, as in the letter to Collector Coyne above noted, to constitute such liquor dealer a rectifier.

You claim that the filter in your wholesale liquor dealer's establishment at———can not be for the purpose of refining distilled spirits because no such spirits are handled or kept on such premises, the articles dealt in at that place being exclusively wines of various producers, and you assert that the filter is used only in connection with the purification of such wines.

All these facts the office is prepared to admit, but can not concur in your interpretation of the law as a proper course for this office to follow.

Under the rulings in which liability as rectifiers is held to accrue, it is assumed that a filter that may be used for the purpose of refining distilled spirits is what is meant by the language of the statute, the presence of which for whatever purpose constitutes such liability and subjects the dealer to special tax as a rectifier.

While the decisions stated are comparatively recent, it may be said that the position of the office therein expressed is of long standing and unvaried in its application.

In view of the facts here stated, this office does not see its way clear to modify the decision made in letter of August 28.

Respectfully,

M. ———.

ROBT. WILLIAMS, JR.,

Acting Commissioner.

(T. D. 1421.)

Sample for analysis.

Samples of butter, which on preliminary or unofficial test are shown to contain excessive moisture, should be forwarded for official analysis by the division of chemistry of this Bureau.

Treasury Department,

Office of Commissioner of Internal Revenue,

Washington, D. C., September 28, 1908.

Sir: This office is in receipt of your letter of the 18th instant, relative to the liability of —— for special tax as wholesale dealers in adulterated butter.

It appears from your report that samples taken by you were analyzed for you by Mr. ——, chemist for the Agricultural Department, and were found to contain moisture in excess of 16 per cent.

You are, therefore, advised that in all cases where a preliminary test is made and butter is found to contain moisture sufficient to classify it as adulterated, samples should be forwarded to this office for an official test by the chemist of this Bureau, as this office is clearly of the opinion that in the event of litigation arising from the assertion of tax liability in such cases the office position would be materially strengthened by having an official analysis by the division of chemistry of this Bureau to offer as evidence in support of its contention.

Respectfully,

ROBT. WILLIAMS, JR.,

Acting Commissioner.

Mr. JOHN W. SINSEL, Revenue Agent, New York.

A meeting of the food officials of the Southern states is called for December 1st at Atlanta, Ga., to discuss uniform food laws and rulings.

Lynchburg, Va., has a new milk inspector in the person of Dr. Mosby G. Pernow.

A hearing on bleached flour has been called to take place in Washington, D. C., Nov. 18th.

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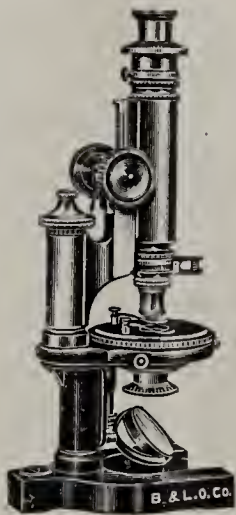
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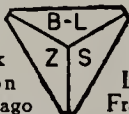
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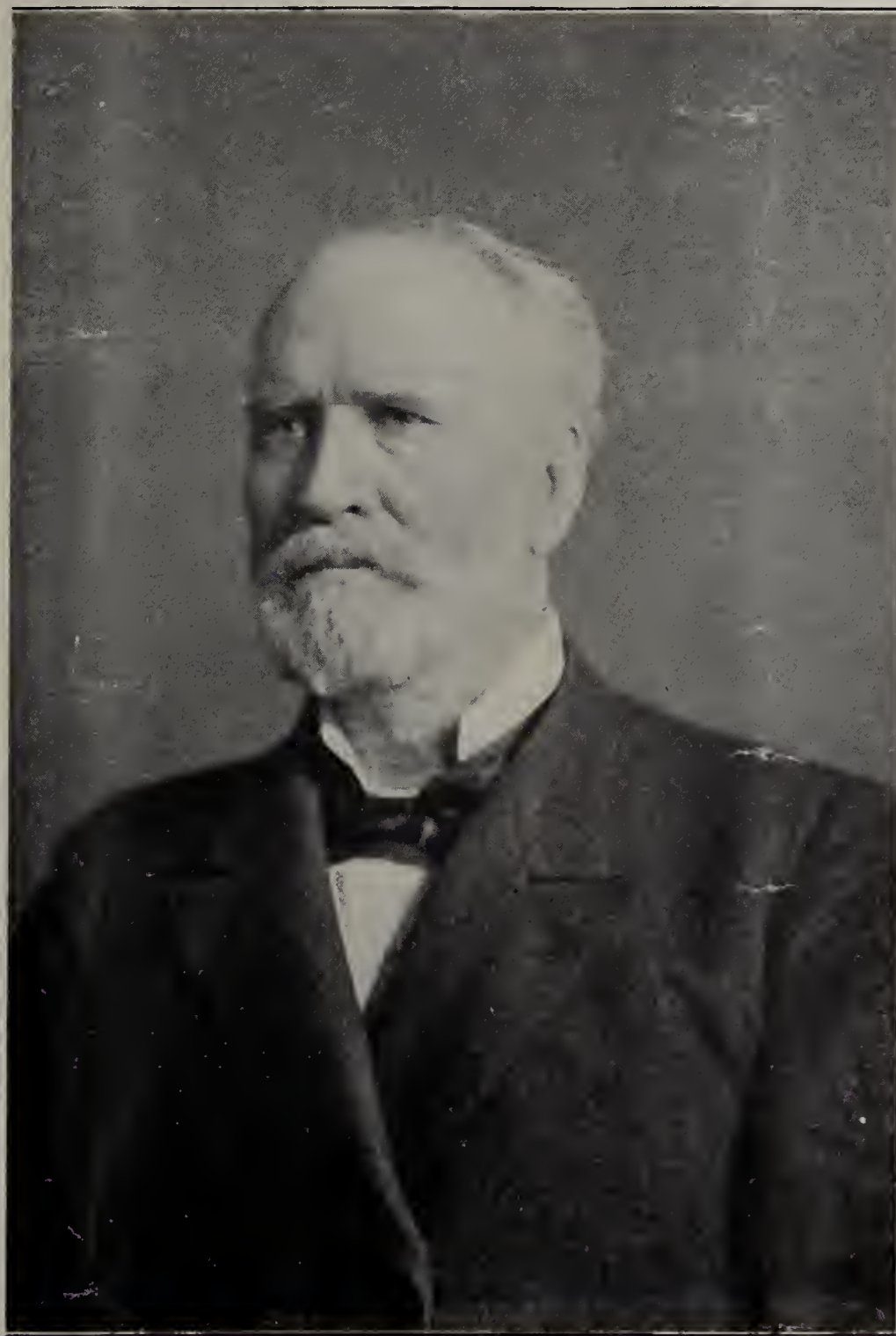
THE AMERICAN FOOD JOURNAL



Vol. III No. 12

CHICAGO, DECEMBER 15, 1908

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(See Report Page 10.)

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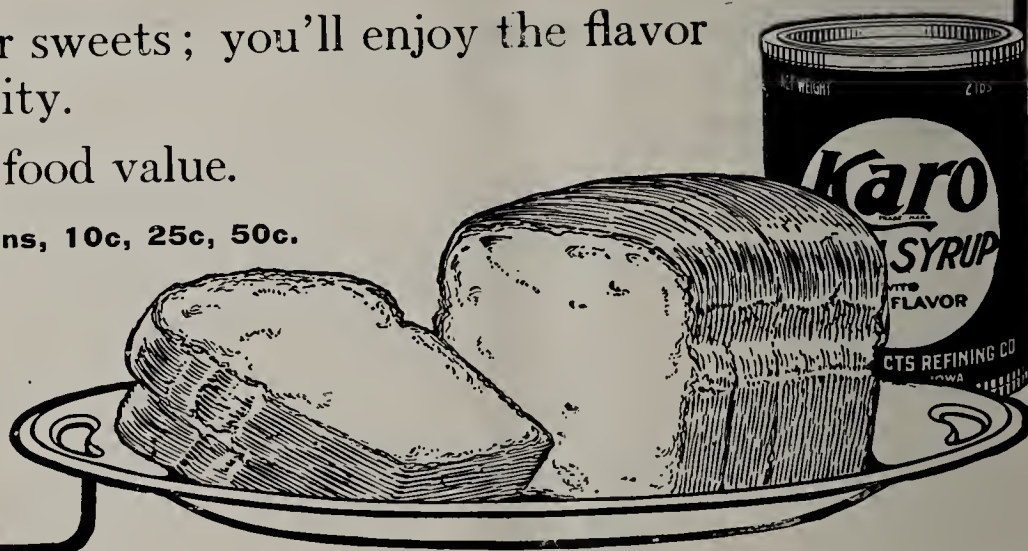
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Proposed Uniform Food Law for States.

Prepared by Committee on State Uniform Food Law, appointed at the Twelfth Annual Convention of the Association of State and National Food and Dairy Departments.

AN ACT

Relating to food, providing for the protection of the public health and the prevention of fraud and deception by prohibiting the manufacture, sale, offering for sale, exposing for sale or having in possession with intent to sell adulterated, misbranded and deleterious food, and providing for the enforcement thereof.

SECTION 1. That it shall be unlawful for any person, persons, firm or corporation, within this state, to manufacture for sale, produce for sale, expose for sale, have in his or their possession for sale or sell, any article of FOOD (or drug) which is adulterated, misbranded or insufficiently labeled within the meaning of this act; and any person, persons, firm or corporation, who shall manufacture for sale, produce for sale, expose for sale, have in his or their possession for sale or sell, any article of FOOD (or drug) which is adulterated, misbranded or insufficiently labeled within the meaning of this act shall be guilty of a misdemeanor and upon conviction thereof shall be fined not less than dollars nor more than dollars, or be imprisoned not to exceed days, or both such fine and imprisonment.

Section 2. That the term "FOOD" as used in this act shall include every article used for or entering into the composition of, or used or intended for use in the preparation of, food or drink for man or domestic animals.

Section 3. That for the purpose of this act an article of "FOOD" shall be deemed to be adulterated:

First. If any substance be mixed or packed with it so as to reduce or lower or injuriously affect its quality, strength or purity.

Second. If any substance be substituted wholly or in part for the article.

Third. If any valuable constituent of the article has been wholly or in part abstracted, or if the product be below that standard of quality, strength or purity represented to the purchaser or consumer.

Fourth. If it be mixed, colored or changed in color, coated, polished, powdered, stained or bleached whereby damage or inferiority is concealed, or so that it may deceive or mislead the purchaser or consumer, or if by any means it is made to appear better or of greater value than it is, or if it is colored or flavored in imitation of the genuine color or flavor of another substance.

Fifth. If it contains any added boric acid or borates, salicylic acid or salicylates, benzoic acid or benzoates, formaldehyde, sulphurous acid or sulphites, hydrofluoric acid or

fluorides, fluoborates, fluosilicates, or other fluorine compounds, dulcin glucin, saccharin, caffeine, betanaphthol, hydro-naphthol, abrastol, asaprol, oxides of nitrogen, nitrous acid or nitrates, compound of copper, pyroligneous acid, or other added ingredient deleterious to health; or if, in the case of confectionery, it contains any of the substances mentioned in this paragraph or any mineral substance, alcoholic liquor, or any other substance deleterious to health; PROVIDED, however, that nothing in this Act shall be construed to prohibit the use of common salt, sugar, wine vinegar, cider vinegar, malt vinegar, sugar vinegar, distilled vinegar, spices and their essential oils, alcohol (except in confectionery), edible oils, edible fats, or wood smoke applied directly as generated, or proper refrigeration.

Sixth. If it consists of or is manufactured in whole or in part from a diseased, contaminated, filthy or decomposed substance, either animal or vegetable, or an animal or vegetable substance produced, stored, transported or kept in a condition that would render the article diseased, contaminated or unwholesome, or if it is any part of the product of a diseased animal, or the product of an animal that has died otherwise than by slaughter, or that has been fed upon the offal from a slaughter house, or if it is the milk from an animal fed upon a substance unfit for food for dairy animals, or from an animal kept and milked in a filthy or a contaminated stable, or in surroundings that would render the milk contaminated: PROVIDED, that any article of food which is not adulterated under the provisions of paragraphs Nos. 4, 5 and 6, of Section 3 of this Act, and not misbranded or insufficiently labeled within the meaning of this Act, and which does not contain any filler or ingredient which debases without adding food value, may be manufactured or sold if the same be so labeled, branded or tagged as to show the character and composition thereof. All labeling of packages required in any provision of this Act shall be on the main label of each package and in such character and size of type as shall be uniform with the name of the brand or the name of the manufacturer or jobber, and in such position and terms as may be plainly seen and read and understood by the purchaser or consumer.

PROVIDED FURTHER that nothing in this Act shall be construed as requiring or compelling the proprietors, manufacturers or sellers of proprietary foods, which contain no added deleterious substances or ingredients, to disclose their trade formulas except in so far as the provisions of this Act require to secure freedom from adulteration, imitation or misbranding.

Section 4. That for the purpose of this Act an article shall be deemed to be misbranded:

First. If it be an imitation of or offered for sale under the name of another article.

Second. If it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package.

Third. If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, design or device shall be false or misleading in any particular.

Section 5. That for the purpose of this Act an article shall be deemed to be insufficiently labeled:

First. If every package, bottle or container does not bear the name of the real manufacturer or jobber and the true grade or class of the product and the true net weight or volume of the contents or the capacity or trade size of the container.

Section 6. For the purpose of this Act the following definitions and limitations are hereby fixed and adopted and all substances not specifically included in the respective definitions and limitations hereinafter recited are hereby excluded.

FOOD STANDARDS.

1. Animal Products.

A. Meats and the Principal Meat Products.

a. Meats.

1. Meat, flesh, is any clean, sound, dressed, and properly prepared edible part of animals in good health at the time of slaughter, and if it bears a name descriptive of its kind, composition, or origin, it corresponds thereto. The term "animals," as herein used, includes not only mammals, but fish, fowls, crustaceans, mollusks, and all other animals used as food.

2. Fresh meat is meat from animals recently slaughtered and properly cooled until delivered to the consumer.

3. Cold-storage meat is meat from animals recently slaughtered and preserved by refrigeration until delivered to the consumer.

4. Salted, pickled, and smoked meats are unmixed meats preserved by salt, sugar, vinegar, spices, or smoke, singly or in combination, whether in bulk or in suitable containers.

a. Suitable containers for keeping moist food products such as sirups, honey, condensed milk, soups, meat extracts, meats, manufactured meats and undried fruits and vegetables, and wrappers in contact with food products, contain on their surfaces, in contact with the food product, no lead, antimony, arsenic, zinc, or copper or any compounds thereof or any other poisonous or injurious substances. If the containers are made of tin plate, they are outside soldered and the plate in no place contains less than one hundred and thirteen (113) milligrams of tin on a piece five (5) centimeters square or one and eight-tenths (1.8) grains on a piece two (2) inches square.

The inner coating of the containers is free from pin holes, blisters, and cracks.

If the tin plate is lacquered, the lacquer completely covers the tinned surface within the container and yields to the contents of the container no lead, antimony, arsenic, zinc, or copper or any compounds thereof, or any other poisonous or injurious substance.

b. Manufactured Meats.

1. Manufactured meats are meats not included in paragraphs 2, 3, and 4.

Sub-class "a."

Whether simple or mixed, whole or comminuted, in bulk or in suitable containers, with or without the addition of salt, sugar, vinegar, spices, smoke, oils, or rendered fat. If they bear names descriptive of kind, composition, or origin, they correspond thereto, and when bearing such descriptive names, if force or flavoring meats are used the kind and quantity thereof are made known.

2. Sausage, sausage meat, is a comminuted meat from meat cattle or swine, or a mixture of such meats, either fresh, salted, pickled or smoked, with added salt and spices and

with or without the addition of edible animal fats, blood and sugar, or subsequent smoking. It contains no larger amount of water than the meats from which it is prepared contain when in their fresh condition, and if it bears a name descriptive of kind, composition, or origin, it corresponds to such descriptive name. All animal tissues used as containers, such as casings, stomachs, etc., are clean and sound and impart to the contents no other substance than salt.

3. Blood sausage is sausage to which has been added clean fresh blood from neat cattle or swine in good health at the time of slaughter.

4. Canned meat is the cooked, fresh meat of fowls, neat cattle or swine, preserved in hermetically sealed packages.

5. Corned or cured meat is meat cured or pickled with dry salt or in brine, with or without the addition of sugar or sirup and (pending further inquiry) saltpeter.

6. Potted meat is comminuted and cooked meat from those parts of the animal ordinarily used for food in the fresh state, with or without salt and spices, and enclosed in suitable containers hermetically sealed.

7. Meat loaf is a mixture of comminuted cooked meat, with or without spices, cereals, milk and eggs, and pressed into a loaf. If it bears a descriptive name, it corresponds thereto.

8. Mince, mince meat, is a mixture of not less than ten (10) per cent of cooked, comminuted meat, with chopped suet, apple and other fruit, salt, and spices, and with sugar, sirup, or molasses, and with or without vinegar, fresh, concentrated, or fermented fruit juices, or spirituous liquors.

c. Meat Extracts, Meat Peptones, Gelatin, Etc.

1. Meat extract is the product obtained by extracting fresh meat with boiling water and concentrating the liquid portion by evaporation after the removal of fat, and contains not less than seventy-five (75) per cent of total solids, of which not over twenty-seven (27) per cent is ash, and not over twelve (12) per cent is sodium chloride (calculated from the total chlorine present), not over six-tenths (0.6) per cent is fat, and not less than eight (8) per cent is nitrogen. The nitrogenous compounds contain not less than forty (40) per cent of meat bases and not less than ten (10) per cent of kreatin and kreatinin.

2. Fluid meat extract is identical with meat extract except that it is concentrated to a lower degree and contains not more than seventy-five (75) and not less than fifty (50) per cent of total solids.

3. Bone extract is the product obtained by extracting clean, fresh, trimmed bones, of animals in good health at the time of slaughter, with boiling water and concentrating the liquid portion by evaporation, after removal of the fat, and contains not less than seventy-five (75) per cent of total solids.

4. Fluid bone extract is identical with bone extract except that it is concentrated to a lower degree and contains not more than seventy-five (75) and not less than fifty (50) per cent of total solids.

5. Meat juice is the fluid portion of muscle fiber, obtained by pressure or otherwise, and may be concentrated by evaporation at a temperature below the coagulating point of the soluble proteids. The solids contain not more than fifteen (15) per cent of ash, not more than two and five-tenths (2.5) per cent of sodium chloride (calculated from the total chlorine present), not more than four (4) nor less than two (2) per cent of phosphoric acid (P_2O_5), and not less than twelve (12) per cent of nitrogen. The nitrogenous bodies contain not less than thirty-five (35) per cent of coagulable proteids and not more than forty (40) per cent of meat bases.

6. Peptones are products prepared by the digestion of proteid material by means of enzymes or otherwise, and contain not less than ninety (90) per cent of proteoses and peptones.

7. Gelatin (edible gelatin) is the purified, dried, inodorous product of the hydrolysis, by treatment with boiling water, of certain tissues, as skin, ligaments, and bones, from sound animals, and contains not more than two (2) per cent of ash and not less than fifteen (15) per cent of nitrogen.

d. Lard.

1. Lard is the rendered fresh fat from hogs in good health at the time of slaughter, is clean, free from rancidity, and contains, necessarily incorporated in the process of rendering, not more than one (1) per cent of substances other than fatty acids and fat.

2. Leaf lard is lard rendered at moderately high temperatures from the internal fat of the abdomen of the hog, excluding that adherent to the intestines, and has an iodine number not greater than sixty (60).

3. Neutral lard is lard rendered at low temperatures.

B. MILK AND ITS PRODUCTS.

a. Milks.

1. Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows, properly fed and kept, excluding that obtained within fifteen days before and ten days after calving, and contains not less than eight and one-half (8.5) per cent of solids not fat, and not less than three and one-quarter (3.25) per cent of milk fat.

2. Blended milk is milk modified in its composition so as to have a definite and stated percentage of one or more of its constituents.

3. Skim milk is milk from which a part or all of the cream has been removed, and contains not less than nine and one-quarter (9.25) per cent of milk solids.

4. Pasteurized milk is milk that has been heated below boiling, but sufficiently to kill most of the active organisms present, and immediately cooled to 50° Fahr. or lower.

5. Sterilized milk is milk that has been heated at the temperature of boiling water or higher for a length of time sufficient to kill all organisms present.

6. Condensed milk, evaporated milk, is milk from which a considerable portion of water has been evaporated, and contains not less than twenty-eight (28) per cent of milk solids, of which not less than twenty-seven and sixty-seven hundredths (27.67) per cent is milk fat.

7. Sweetened condensed milk is milk from which a considerable portion of water has been evaporated and to which sugar (sucrose) has been added, and contains not less than twenty-eight (28) per cent of milk solids, of which not less than twenty-seven and sixty-seven hundredths (27.67) per cent is milk fat.

8. Condensed skim milk is skim milk from which a considerable portion of water has been evaporated.

9. Buttermilk is the product that remains when butter is removed from milk or cream in the process of churning.

10. Goat's milk, ewe's milk, et cetera, are the fresh, clean, lacteal secretions, free from colostrum, obtained by the complete milking of healthy animals other than cows, properly fed and kept, and conform in name to the species of animals from which they are obtained.

b. Cream.

1. Cream is that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, is fresh and clean, and contains not less than eighteen (18) per cent of milk fat.

2. Evaporated cream, clotted cream, is cream from which a considerable portion of water has been evaporated.

c. Milk Fat or Butter Fat.

1. Milk fat, butter fat, is the fat of milk and has a Reichert-Meissl number not less than twenty-four (24) and a specific gravity not less than 0.905

(40°C.)

(40°C.)

d. Butter.

1. Butter is the clean, non-rancid product made by gathering in any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt, and contains not less than eighty-two and five-tenths (82.5) per cent of milk fat. Butter may also contain added coloring matter.

2. Renovated butter, process butter, is the product made by melting butter and reworking, without the addition or use of chemicals or any substances except milk, cream, or salt, and contains not more than sixteen (16) per cent of water and at least eighty-two and five-tenths (82.5) per cent of milk fat.

e. Cheese.

1. Cheese is the sound, solid, and ripened product made from milk or cream by coagulating the casein thereof with rennet or lactic acid, with or without the addition of ripening ferments and seasoning, and contains, in the water-free substance, not less than fifty (50) per cent of milk fat. Cheese may also contain added coloring matter.

2. Skim milk cheese is the sound, solid, and ripened product made from skim milk by coagulating the casein thereof with rennet or lactic acid, with or without the addition of ripening ferments and seasoning.

3. Goat's milk cheese, ewe's milk cheese, et cetera, are the sound, ripened products made from the milks of the animals specified, by coagulating the casein thereof with rennet or lactic acid, with or without the addition of ripening ferments and seasoning.

f. Ice creams.

1. Ice cream is a frozen product made from cream and

sugar, with or without a natural flavoring, and contains not less than fourteen (14) per cent of milk fat.

2. Fruit ice cream is a frozen product made from cream, sugar, and sound, clean, mature fruits, and contains not less than twelve (12) per cent of milk fat.

3. Nut ice cream is a frozen product made from cream, sugar, and sound, non-rancid nuts, and contains not less than twelve (12) per cent of milk fat.

g. Miscellaneous Milk Products.

1. Whey is the product remaining after the removal of fat and casein from milk in the process of cheese-making.

2. Kumiss is the product made by the alcoholic fermentation of mare's or cow's milk.

11. VEGETABLE PRODUCTS.

A. GRAIN PRODUCTS.

a. Grains and Meals.

1. Grain is the fully matured, clean, sound, air-dry seed of wheat, maize, rice, oats, rye, buckwheat, barley, sorghum, millet, or spelt.

2. Meal is the clean, sound product made by grinding grain.

3. Flour is the fine, clean, sound product made by bolting wheat meal, and contains not more than thirteen and one-half (13.5) per cent of moisture not less than one and twenty-five hundredths (1.25) per cent of nitrogen, not more than one (1) per cent of ash, and not more than fifty-hundredths (0.50) per cent of fiber.

4. Graham flour is unbolted wheat meal.

5. Gluten flour is the clean, sound product made from flour by the removal of starch, and contains not less than five and six-tenths (5.6) per cent of nitrogen and not more than ten (10) per cent of moisture.

6. Maize meal, corn meal, Indian meal, is meal made from sound maize grain, and contains not more than fourteen (14) per cent of moisture, not less than one and twelve-hundredths (1.12) per cent of nitrogen, and not more than one and six-tenths (1.6) per cent of ash.

7. Rice is the hulled, or hulled and polished grain of *Oryza sativa*.

8. Oatmeal is meal made from hulled oats, and contains not more than twelve (12) per cent of moisture, not more than one and five-tenths (1.5) per cent of crude fiber, not less than two and twenty-four hundredths (2.24) per cent of nitrogen, and not more than two and two-tenths (2.2) per cent of ash.

9. Rye flour is the fine, clean, sound product made by bolting rye meal, and contains not more than thirteen and one-half (13.5) per cent of moisture, not less than one and thirty-six hundredths (1.36) per cent of nitrogen, and not more than one and twenty-five hundredths (1.25) per cent of ash.

10. Buckwheat flour is bolted buckwheat meal, and contains not more than twelve (12) per cent of moisture, not less than one and twenty-eight hundredths (1.28) per cent of nitrogen, and not more than one and seventy-five hundredths (1.75) per cent of ash.

B. FRUIT AND VEGETABLES.

a. Fruit and Fruit Products.

(Except fruit juices, fresh, sweet and fermented and vinegars.)

1. Fruits are the clean, sound, edible, fleshy fructifications of plants, distinguished by their sweet, acid, and ethereal flavors.

2. Dried fruit is the clean, sound product made by drying mature, properly prepared, fresh fruit in such a way as to take up no harmful substance, and conforms in name to the fruit used in its preparation; sun-dried fruit is dried fruit made by drying without the use of artificial means; evaporated fruit is dried fruit made by drying with the use of artificial means.

3. Evaporated apples are evaporated fruit made from peeled and cored apples, and contain not more than twenty-seven (27) per cent of moisture determined by the usual commercial method of drying for four (4) hours at the temperature of boiling water.

4. Canned fruit is the sound product made by sterilizing clean, sound, properly matured and prepared fresh fruit, by heating, with or without sugar (sucrose) and spices, and keeping in suitable, clean, hermetically sealed containers, and conforms in name to the fruit used in its preparation.

5. Preserve is the sound product made from clean, sound, properly matured and prepared fresh fruit and sugar (sucrose) sirup, with or without spices or vinegar, and conforms in name to that of the fruit used, and in its preparation not

less than forty-five (45) pounds of fruit are used to each fifty-five (55) pounds of sugar.

6. Honey preserve is preserve in which honey is used in place of sugar (sucrose) sirup.

7. Glucose preserve is preserve in which a glucose product is used in place of sugar (sucrose) sirup.

8. Jam, marmalade is the sound product made from clean, sound, properly matured and prepared fresh fruit and sugar (sucrose), with or without spices or vinegar, by boiling to a pulpy or semisolid consistence, and conforms in name to the fruit used, and in its preparation not less than forty-five (45) pounds of fruit are used to each fifty-five (55) pounds of sugar.

9. Glucose, jam, glucose marmalade, is jam in which a glucose product is used in place of sugar (sucrose).

10. Fruit butter is the sound product made from fruit juice and clean, sound, properly matured and prepared fruit, evaporated to a semisolid mass of homogeneous consistence, with or without the addition of sugar and spices or vinegar, and conforms in name to the fruit used in its preparation.

11. Glucose fruit butter is fruit butter in which a glucose product is used in place of sugar (sucrose).

12. Jelly is the sound, semisolid, gelatinous product made by boiling clean, sound, properly matured and prepared fresh fruit with water, concentrating the expressed and strained juice, to which sugar (sucrose) is added, and conforms in name to the fruit used in its preparation.

13. Glucose jelly is jelly in which a glucose product is used in place of sugar (sucrose).

b. Vegetables and Vegetable Products.

1. Vegetables are the succulent, clean, sound edible parts of herbaceous plants used for culinary purposes.

2. Dried vegetables are the clean, sound products made by drying properly matured and prepared vegetables in such a way as to take up no harmful substance, and conform in name to the vegetables used in their preparation; sun-dried vegetables are dried vegetables made by drying without the use of artificial means; evaporated vegetables are dried vegetables made by drying with the use of artificial means.

3. Canned vegetables are sound, properly matured and prepared fresh vegetables, with or without salt, sterilized by heat, with or without previous cooking in vessels from which they take up no metallic substance, kept in suitable, clean, hermetically sealed containers, are sound and conform in name to the vegetables used in their preparation.

4. Pickles are clean, sound, immature cucumbers, properly prepared, without taking up any metallic compound other than salt, and preserved in any kind of vinegar, with or without spices; pickled onions, pickled beets, pickled beans, and other pickled vegetables are vegetables prepared as described above, and conform in name to the vegetables used.

5. Salt pickles are clean, sound, immature cucumbers, preserved in a solution of common salt, with or without spices.

6. Sweet pickles are pickled cucumbers or other vegetables in the preparation of which sugar (sucrose) is used.

7. Sauerkraut is clean, sound, properly prepared cabbage, mixed with salt, and subjected to fermentation.

8. Catchup (ketchup, catsup) is the clean, sound product made from the properly prepared pulp of clean, sound, fresh, ripe tomatoes, with spices and with or without sugar and vinegar; mushroom catchup, walnut catchup, et cetera, are catchups made as above described, and conform in name to the substances used in their preparation.

C. SUGAR AND RELATED SUBSTANCES.

a. SUGAR AND SUGAR PRODUCTS.

Sugars.

1. Sugar is the product chemically known as sucrose (saccharose) chiefly obtained from sugar cane, sugar beets, sorghum, maple, and palm.

2. Granulated, loaf, cut, milled, and powdered sugars are different forms of sugar, and contain at least ninety-nine and five-tenths (99.5) per cent of sucrose.

3. Maple sugar is the solid product resulting from the evaporation of maple sap, and contains, in the water-free substance, not less than sixty-five one-hundredths (0.65) per cent of maple sugar ash.

4. Masecuite, melada, mush sugar, and concrete are products made by evaporating the purified juice of a sugar-producing plant, or a solution of sugar, to a solid or semisolid consistence, and in which the sugar chiefly exists in a crystalline state.

Molasses and Refiners' Sirup.

1. Molasses is the product left after separating the sugar from masecuite, melada, mush sugar, or concrete, and con-

tains not more than twenty-five (25) per cent of water and not more than five (5) per cent of ash.

2. Refiners' sirup, treacle, is the residual liquid product obtained in the process of refining raw sugars, and contains not more than twenty-five (25) per cent of water and not more than eight (8) per cent of ash.

Sirups.

1. Sirup is the sound product made by purifying and evaporating the juice of a sugar-producing plant without removing any of the sugar.

2. Sugar-cane sirup is sirup made by the evaporation of the juice of the sugar-cane or by the solution of sugar-cane concrete, and contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash.

3. Sorghum sirup is sirup made by the evaporation of sorghum juice or by the solution of sorghum, concrete, and contains not more than thirty (30) per cent of water and not more than two and five-tenths (2.5) per cent of ash.

4. Maple sirup is sirup made by the evaporation of maple sap or by the solution of maple concrete, and contains not more than thirty-two (32) per cent of water and not less than forty-five hundredths (0.45) per cent of maple sirup ash.

5. Sugar sirup is the product made by dissolving sugar to the consistence of a sirup, and contains not more than thirty-five (35) per cent of water.

b. Glucose Products.

1. Starch sugar is the solid product made by hydrolyzing starch or a starch-containing substance until the greater part of the starch is converted into dextrose. Starch sugar appears in commerce in two forms, anhydrous starch sugar and hydrous starch sugar. The former crystallized without water of crystallization, contains not less than ninety-five (95) per cent of dextrose and not more than eight-tenths (0.8) per cent of ash. The latter, crystallized with water of crystallization, is of two varieties—70 sugar, also known as brewers' sugar, contains not less than seventy (70) per cent dextrose and not more than eight-tenths (0.8) per cent of ash; 80 sugar, climax or acme sugar, contains not less than eighty (80) per cent of dextrose and not more than one and one-half (1.5) per cent of ash.

The ash of all these products consists almost entirely of chlorids and sulphates.

2. Glucose, mixing glucose, confectioners' glucose, is a thick, sirupy, colorless product made by incompletely hydrolyzing starch, or a starch-containing substance, and decolorizing and evaporating the product. It varies in density from forty-one (41) to forty-five (45) degrees Baume at a temperature of 100° Fahr. (37.7° C.) and conforms in density, within these limits, to the degree Baume it is claimed to show, and for a density of forty-one (41) degrees Baume contains not more than twenty-one (21) per cent and for a density of forty-five (45) degrees not more than fourteen (14) per cent of water. It contains on a basis of forty-one (41) degrees Baume not more than one (1) per cent of ash, consisting chiefly of chlorids and sulphates.

c. Candy.

1. Candy is a product made from a saccharine substance or substances with or without the addition of harmless coloring, flavoring, or filling materials, and contains no terrabalsa, barytes, talc, chrome yellow, or other mineral substances, or poisonous colors or flavors, or other ingredients deleterious or detrimental to health, or any vinous, malt, or spirituous liquor or compound, or narcotic drug.

d. Honey.

1. Honey is the nectar and saccharine exudations of plants gathered, modified, and stored in the comb by honey bees (*Apis mellifica* and *A. dorsata*); in laeve-rotatory, contains not more than twenty-five (25) per cent of water, and not more than twenty-five-hundredths (0.25) per cent of ash, and not more than eight (8) per cent of sucrose.

2. Comb honey is honey contained in the cells of comb.

3. Extracted honey is honey which has been separated from the uncrushed comb by centrifugal force or gravity.

4. Strained honey is honey removed from the crushed comb by straining or other means.

D. CONDIMENTS (EXCEPT VINEGAR AND SALT).

a. Spices.

1. Spices are aromatic vegetable substances used for the seasoning of food and from which no portion of any volatile oil or other flavoring principle has been removed, and which are clean, sound, and true to name.

2. Allspice, pimento, is the dried fruit of the *Pimenta pimenta* (L) Karst., and contains not less than eight (8) per

cent of quercitannic acid*; not more than six (6) per cent of total ash, not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than twenty-five (25) per cent of crude fiber.

*Calculated from the total oxygen absorbed by the aqueous extract.

3. Anise is the fruit of the *Pimpinella anisum* L.
 4. Bay leaf is the dried leaf of *Laurus nobilis* L.
 5. Capers are the flower buds of *Capparis spinosa* L.
 6. Caraway is the fruit of *Carum carvi* L.
 - Cayenne and Red Peppers.
 7. Red pepper is the red, dried, ripe fruit of any species of *Capsicum*.
 8. Cayenne pepper, cayenne, is the dried ripe fruit of *Capsicum frutescens* L., *Capsicum baccatum* L., or some other small-fruited species of *Capsicum*, and contains not less than fifteen (15) per cent of nonvolatile ether extract; not more than six and five-tenths (6.5) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid; not more than one and five-tenths (1.5) per cent of starch, and not more than twenty-eight (28) per cent of crude fiber.
 9. Paprika is the dried ripe fruit of *Capsicum annuum* L., or some other large-fruited species of *Capsicum*, excluding seeds and stems.
 10. Celery seed is the dried fruit of *Apium graveolens* L.
 11. Cinnamon is the dried bark of any species of the genus *Cinnamomum* from which the outer layers may or may not have been removed.
 12. True cinnamon is the dried inner bark of *Cinnamomum zeylanicum* Breyne.
 13. Cassia is the dried bark of various species of *Cinnamomum*, other than *Cinnamomum zeylanicum*, from which the outer layers may or may not have been removed.
 14. Cassia buds are the dried immature fruit of species of *Cinnamomum*.
 15. Ground cinnamon, ground cassia, is a powder consisting of cinnamon, cassia, or cassia buds, or a mixture of these spices, and contains not more than six (6) per cent of total ash and not more than two (2) per cent of sand.
 16. Cloves are the dried flower buds of *Caryophyllus aromaticus* L., which contain not more than five (5) per cent of clove stems; not less than ten (10) per cent of volatile ether extract; not less than twelve (12) per cent of quercitannic acid*; not more than eight (8) per cent of total ash; not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than ten (10) per cent of crude fiber.
- *Calculated from the total oxygen absorbed by the aqueous extract.
17. Coriander is the dried fruit of *Coriandrum sativum* L.
 18. Cumin seed is the fruit of *Cuminum cyminum* L.
 19. Dill seed is the fruit of *Anethum graveolens* L.
 20. Fennel is the fruit of *Foeniculum foeniculum* (L) Karst.
 21. Ginger is the washed and dried or decorticated and dried rhizome of *Zingiber zingiber* (L) Karst., and contains not less than forty-two (42) per cent of starch; not more than eight (8) per cent of crude fiber, not more than six (6) per cent of total ash, not more than one (1) per cent of lime, and not more than three (3) per cent of ash insoluble in hydrochloric acid.
 22. Lined ginger, bleached ginger, is whole ginger coated with carbonate of lime, and contains not more than ten (10) per cent of ash, not more than four (4) per cent of carbonate of lime, and conforms in other respects to the standard for ginger.
 23. Horse-radish is the root of *Roripa armoracia* (L) Hitchcock, either by itself or ground and mixed with vinegar.
 24. Mace is the dried arillus of *Myristica fragrans* Houttuyn, and contains not less than twenty (20) nor more than thirty (30) per cent of nonvolatile ether extract, not more than three (3) per cent of total ash, and not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than ten (10) per cent of crude fiber.
 25. Macassar mace, Papua mace, is the dried arillus of *Myristica argentea* Warb.
 26. Bombay mace is the dried arillus of *Myristica malabarica* Lamarck.
 27. Marjoram is the leaf, flower, and branch of *Marjorana marjorana* (L) Karst.
 28. Mustard seed is the seed of *Sinapis alba* L. (white mustard), *Brassica nigra* (L) Koch (black mustard), or *Brassica juncea* (L) Cosson (black or brown mustard).

29. Ground mustard is a powder made from mustard seed, with or without the removal of the hulls and a portion of the fixed oil, and contains not more than two and five-tenths (2.5) per cent of starch and not more than eight (8) per cent of starch and not more than eight (8) per cent of total ash.

30. Prepared mustard, German mustard, French mustard, mustard paste, is a paste composed of a mixture of ground mustard seed or mustard flour with salt, spices, and vinegar, and, calculated free from water, fat, and salt, contains not more than twenty-four (24) per cent of carbohydrates, calculated as starch, determined according to the official methods, not more than twelve (12) per cent of crude fiber nor less than thirty-five (35) per cent of protein, derived solely from the materials named.

31. Nutmeg is the dried seed of the *Myristica fragrans* Houttuyn, deprived of its testa, with or without a thin coating of lime, and contains not less than twenty-five (25) per cent of nonvolatile ether extract, not more than five (5) per cent of total ash, not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than ten (10) per cent of crude fiber.

32. Macassar nutmeg, Papua nutmeg, male nutmeg, long nutmeg, is the dried seed of *Myristica argentea* Warb, deprived of its testa.

Pepper.

33. Black pepper is the dried immature berry of *Piper nigrum* L. and contains not less than six (6) per cent of nonvolatile ether extract, not less than twenty-five (25) per cent of starch, not more than seven (7) per cent of total ash, not more than two (2) per cent of ash insoluble in hydrochloric acid, and not more than fifteen (15) per cent of crude fiber. One hundred parts of the nonvolatile ether extract contain not less than three and one-quarter (3.25) parts of nitrogen. Ground black pepper is the product made by grinding the entire berry, and contains the several parts of the berry in their normal proportions.

34. Long pepper is the dried fruit of *Piper longum* L.

35. White pepper is the dried mature berry of *Piper nigrum* L. from which the outer coating, or the outer and inner coatings, have been removed, and contains not less than six (6) per cent of nonvolatile ether extract, not less than fifty (50) per cent of starch, not more than four (4) per cent of total ash, not more than five-tenths (0.5) per cent of ash insoluble in hydrochloric acid, and not more than five (5) per cent of crude fiber. One hundred parts of the nonvolatile ether extract contain not less than four (4) parts of nitrogen.

36. Saffron is the dried stigma of *Crocus sativus* L.

37.* Sage is the leaf of *Salvia officinalis* L.

38. Savory, summer savory, is the leaf, blossom, and branch of *Satureja hortensis* L.

39. Thyme is the leaf and tip of blooming branches of *Thymus vulgaris* L.

b. Flavoring Extracts.

1. A flavoring extract* is a solution in ethyl alcohol of proper strength of the sapid and odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring-matter, and conforms in name to the plant used in its preparation.

*The flavoring extracts herein described are intended solely for food purposes and are not to be confounded with similar preparations described in the Pharmacopoeia for medicinal purposes. (b) The term "flavoring extract" includes solutions sold for food purposes as "flavors," "flavorings," "essences," and "tinctures."

2. Almond extract is the flavoring extract prepared from oil of bitter almonds, free from hydrocyanic acid, and contains not less than one (1) per cent by volume of oil of bitter almonds.

2a. Oil of bitter almonds, commercial, is the volatile oil obtained from the seed of the bitter almond (*Amygdalus communis* L.), the apricot (*Prunus armeniaca* L.), or the peach (*Amygdalus persica* L.).

3. Anise extract is the flavoring extract prepared from oil of anise, and contains not less than three (3) per cent by volume of oil of anise.

3a. Oil of anise is the volatile oil obtained from the anise seed.

4. Celery seed extract is the flavoring extract prepared from celery seed or the oil of celery seed, or both, and contains not less than three-tenths (0.3) per cent by volume of oil of celery seed.

4a. Oil of celery seed is the volatile oil obtained from celery seed.

5. Cassia extract is the flavoring extract prepared from oil of cassia, and contains not less than two (2) per cent by volume of oil of cassia.

5a. Oil of cassia is the lead-free volatile oil obtained from the leaves or bark of *Cinnamomum cassia* Bl., and contains not less than seventy-five (75) per cent by weight of cinnamic aldehyde.

6. Cinnamon extract is the flavoring extract prepared from oil of cinnamon, and contains not less than two (2) per cent by volume of oil of cinnamon.

6a. Oil of cinnamon is the lead-free volatile oil obtained from the bark of the Ceylon cinnamon (*Cinnamomum zeylanicum* Breyne), and contains not less than sixty-five (65) per cent by weight of cinnamic aldehyde and not more than ten (10) per cent by weight of eugenol.

7. Clove extract is the flavoring extract prepared from oil of cloves, and contains not less than two (2) per cent by volume of oil of cloves.

7a. Oil of cloves is the lead-free, volatile oil obtained from cloves.

8. Ginger extract is the flavoring extract prepared from ginger, and contains in each one hundred (100) cubic centimeters the alcohol-soluble matters from not less than twenty (20) grams of ginger.

9. Lemon extract is the flavoring extract prepared from oil of lemon, or from lemon peel, or both, and contains not less than five (5) per cent by volume of oil of lemon.

9a. Oil of lemon is the volatile oil obtained, by expression or alcoholic solution, from the fresh peel of the lemon (*Citrus limonum* L.), has an optical rotation (25° C.) of not less than +60° in a 100-millimeter tube, and contains not less than four (4) per cent by weight of citral.

10. Terpeneless extract of lemon is the flavoring extract prepared by shaking oil of lemon with dilute alcohol, or by dissolving terpeneless oil of lemon in dilute alcohol, and contains not less than two-tenths (0.2) per cent by weight of citral derived from oil of lemon.

10a. Terpeneless oil of lemon is oil of lemon from which all or nearly all of the terpenes have been removed.

11. Nutmeg extract is the flavoring extract prepared from oil of nutmeg, and contains not less than two (2) per cent by volume of oil of nutmeg.

11a. Oil of nutmeg is the volatile oil obtained from nutmegs.

12. Orange extract is the flavoring extract prepared from oil of orange, or from orange peel, or both, and contains not less than five (5) per cent by volume of oil of orange.

12a. Oil of orange is the volatile oil obtained, by expression or alcoholic solution, from the fresh peel of the orange (*Citrus aurantium* L.) and has an optical rotation (25° C.) of not less than +95° in a 100-millimeter tube.

13. Terpeneless extract of orange is the flavoring extract prepared by shaking oil of orange with dilute alcohol, or by dissolving terpeneless oil of orange in dilute alcohol, and corresponds in flavoring strength to orange extract.

13a. Terpeneless oil of orange is oil of orange from which all or nearly all of the terpenes have been removed.

14. Peppermint extract is the flavoring extract prepared from oil of peppermint or from peppermint, or both, and contains not less than three (3) per cent by volume of oil of peppermint.

14a. Peppermint is the leaves and flowering tops of *Mentha piperita* L.

14b. Oil of peppermint is the volatile oil obtained from peppermint, and contains not less than fifty (50) per cent by weight of menthol.

15. Rose extract is the flavoring extract prepared from otto of roses, with or without rose petals, and contains not less than four-tenths (0.4) per cent by volume of otto of roses.

15a. Otto of roses is the volatile oil obtained from the petals of *Rosa damascena* Mill., *R. centifolia* L., or *R. moschata* Herrm.

16. Savory extract is the flavoring extract prepared from oil of savory, or from savory, or both, and contains not less than thirty-five-hundredths (0.35) per cent by volume of oil of savory.

16a. Oil of savory is the volatile oil obtained from savory.

17. Spearmint extract is the flavoring extract prepared from oil of spearmint, or from spearmint, or both, and contains not less than three (3) per cent by volume of oil of spearmint.

17a. Spearmint is the leaves and flowering tops of *Mentha apicata* L.

17b. Oil of spearmint is the volatile oil obtained from spearmint.

18. Star anise extract is the flavoring extract prepared from oil of star anise, and contains not less than three (3) per cent by volume of oil of star anise.

18a. Oil of star anise is the volatile oil distilled from the fruit of the star anise (*Illicium verum* Hook).

19. Sweet basil extract is the flavoring extract prepared from oil of sweet basil, or from sweet basil, or both, and contains not less than one-tenth (0.1) per cent by volume of oil of sweet basil.

19a. Sweet basil, basil, is the leaves and tops of *Ocimum basilicum* L.

19b. Oil of sweet basil is the volatile oil obtained from basil.

20. Sweet marjoram extract, marjoram extract, is the flavoring extract prepared from the oil of marjoram, or from marjoram, or both, and contains not less than one (1) per cent by volume of oil of marjoram.

20a. Oil of marjoram is the volatile oil obtained from marjoram.

21. Thyme extract is the flavoring extract prepared from oil of thyme, or from thyme, or both, and contains not less than two-tenths (0.2) per cent by volume of oil of thyme.

21a. Oil of thyme is the volatile oil obtained from thyme.

22. Tonka extract is the flavoring extract prepared from tonka bean, with or without sugar or glycerin, and contains not less than one-tenth (0.1) per cent by weight of coumarin extracted from the tonka bean, together with a corresponding proportion of the other soluble matters thereof.

22a. Tonka bean is the seed of *Coumarouna odorata* Aublet (*Dipteryx odorata* (Aubl.) Willd.).

23. Vanilla extract is the flavoring extract prepared from vanilla bean, with or without sugar or glycerin, and contains in one hundred (100) cubic centimeters the soluble matters from not less than ten (10) grams of the vanilla bean.

23a. Vanilla bean is the dried, cured fruit of *Vanilla planifolia* Andrews.

24. Wintergreen extract is the flavoring extract prepared from oil of wintergreen, and contains not less than three (3) per cent by volume of oil of wintergreen.

24a. Oil of wintergreen is the volatile oil distilled from the leaves of the *Gaultheria procumbens* L.

c. Edible Vegetables Oils and Fats.

1. Olive oil is the oil obtained from the sound, mature fruit of the cultivated olive-tree (*Olea europaea* L.) and subjected to the usual refining processes; is free from rancidity; has a refractive index (25° C.) not less than one and forty-six hundred and sixty ten-thousandths (1.4660) and not exceeding one and forty-six hundred and eighty ten-thousandths (1.4680); and an iodine number not less than seventy-nine (79) and not exceeding ninety (90).

2. Virgin olive oil is olive oil obtained from the first pressing of carefully selected hand-picked olives.

3. Cotton-seed oil is the oil obtained from the seeds of cotton plants (*Gossypium hirsutum* L., *G. barbadense* L., or *G. herbaceum* L.) and subjected to the usual refining processes; is free from rancidity; has a refractive index (25° C.) not less than one forty-seven hundred ten-thousandths (1.4700) and not exceeding one and forty-seven hundred and twenty-five ten-thousandths (1.4725); and an iodine number not less than one hundred and four (104) and not exceeding one hundred and ten (110).

4. "Winter-yellow" cotton-seed oil is expressed cotton-seed oil from which a portion of the stearin has been separated by chilling and pressure, and has an iodine number not less than one hundred and ten (110) and not exceeding one hundred and sixteen (116).

5. Peanut oil, arachis oil, earthnut oil, is the oil obtained from the peanut (*Arachis hypogaea* L.) and subjected to the usual refining processes; is free from rancidity; has a refractive index (25° C.) not less than one and forty-six hundred and ninety ten-thousandths (1.4690) and not exceeding one and forty-seven hundred and seven ten-thousandths (1.4707); and an iodine number not less than eighty-seven (87) and not exceeding one hundred (100).

6. "Cold-drawn" peanut oil is peanut oil obtained by pressure without heating.

7. Sesame oil, gingili oil, teel oil, is the oil obtained from the seeds of the sesame plants (*Sesamum orientale* L. and *S. radiatum* Schum. and Thonn.) and subjected to the usual refining processes; is free from rancidity; has a refractive index (25° C.) not less than one and forty-seven hundred and four ten-thousandths (1.4704) and not exceeding one and forty-seven hundred and seventeen ten-thousandths

(1.4717); and an iodine number not less than one hundred and three (103) and not exceeding one hundred and twelve (112).

8. "Cold-drawn" sesame oil is sesame oil obtained by pressure without heating.

9. Poppy-seed oil is the oil obtained from the seed of the poppy (*Papaver somniferum* L.) subjected to the usual refining processes and free from rancidity.

10. White poppy-seed oil, "cold-drawn" poppy-seed oil, is poppy-seed oil of the first pressing without heating.

11. Coconut oil is the oil obtained from the kernels of the coconut (*Cocos nucifera* L.) and subjected to the usual refining processes and free from rancidity.

12. Cochin oil is coconut oil prepared in Cochin (Malabar).

13. Ceylon oil is coconut oil prepared in Ceylon.

14. Copra oil is coconut oil prepared from copra, the dried kernels of the coconut.

15. Rape-seed oil, colza oil, is the oil obtained from the seeds of the rape plant (*Brassica napus* L.) and subjected to the usual refining processes and free from rancidity.

16. "Cold-drawn" rape-seed oil is rape-seed oil obtained by the first pressing without heating.

17. Sunflower oil is the oil obtained from the seeds of the sunflower (*Helianthus annuus* L.) and subjected to the usual refining processes and free from rancidity.

18. "Cold-drawn" sunflower oil is sunflower oil obtained by the first pressing without heating.

19. Maize oil, corn oil, is the oil obtained from the germ of the maize (*Zea mays* L.) and subjected to the usual refining processes and free from rancidity.

20. Cocoa butter, cacao butter, is the fat obtained from roasted, sound cocoa beans, and subjected to the usual refining processes; is free from rancidity; has a refractive index (40° C.) not less than one and forty-five hundred and sixty-six ten-thousandths (1.4566) and not exceeding one and forty-five hundred and ninety-eight ten-thousandths (1.4598); an iodine number not less than thirty-three (33) and not exceeding thirty-eight (38); and a melting-point not lower than 30° C. nor higher than 35° C.

21. Cotton-seed oil stearin is the solid product made by chilling cotton-seed oil and separating the solid portion by filtration, with or without pressure, and having an iodine number not less than eighty-five (85) and not more than one hundred (100).

E. TEA, COFFEE, AND COCOA PRODUCTS.

a. Tea.

1. Tea is the leaves and leaf buds of different species of *Thea*, prepared by the usual trade processes of fermenting, drying, and firing; meets the provisions of the Act of Congress approved March 2, 1897, and the regulations made in conformity therewith (Treasury Department Circular 16, February 6, 1905); conforms in variety and place of production to the name it bears; and contains not less than four (4) nor more than seven (7) per cent of ash.

b. Coffee.

1. Coffee is the seed of *Coffea arabica* L. or *Coffea liberica* Bull., freed from all but a small portion of its spermoderm, and conforms in variety and place of production to the name it bears.

2. Roasted coffee is coffee which by the action of heat has become brown and developed its characteristic aroma, and contains not less than ten (10) per cent of fat and not less than three (3) per cent of ash.

c. Cocoa and Cocoa Products.

1. Cocoa beans are the seeds of the cacao-tree, *Theobroma cacao* L.

2. Cocoa nibs, cracked cocoa, is the roasted, broken cocoa bean freed from its shell or husk.

3. Chocolate, plain chocolate, bitter chocolate, chocolate liquor, bitter chocolate coatings, is the solid or plastic mass obtained by grinding cocoa nibs without the removal of fat or other constituents except the germ, and contains not more than three (3) per cent of ash insoluble in water, three and fifty hundredths (3.50) per cent of crude fiber, and nine (9) per cent of starch, and not less than forty-five (45) per cent of cocoa fat.

4. Sweet chocolate, sweet chocolate coatings, is chocolate mixed with sugar (sucrose), with or without the addition of cocoa butter, spices, or other flavoring materials, and contains in the sugar-and-fat-free residue no higher percentage of either ash, fiber, or starch than is found in the sugar-and-fat-free residue of chocolate.

5. Cocoa, powdered cocoa, is cocoa nibs, with or without the germ, deprived of a portion of its fat and finely pulver-

ized, and contains percentages of ash, crude fiber, and starch corresponding to those in chocolate after correction for fat removed.

6. Sweet cocoa, sweetened cocoa, is cocoa mixed with sugar (sucrose), and contains not more than sixty (60) per cent of sugar (sucrose), and in the sugar-and-fat-free residue no higher percentage of either ash, crude fiber, or starch than is found in the sugar-and-fat-free residue of chocolate.

F. BEVERAGES.

A. FRUIT JUICES—FRESH, SWEET, AND FERMENTED.

1. Fresh Fruit Juices.

1. Fresh fruit juices are the clean unfermented liquid products obtained by the first pressing of fresh, ripe fruits, and correspond in name to the fruits from which they are obtained.

2. Apple juice, apple must, sweet cider, is the fresh fruit juice obtained from apples, the fruit of *Pyrus malus*, has a specific gravity (20° C.) not less than 1.0415 nor greater than 1.0690; and contains in one hundred (100) cubic centimeters (20° C.) not less than six (6) grams, and not more than twenty (20) grams of total sugars, in terms of reducing sugars, not less than twenty-four (24) centigrams nor more than sixty (60) centigrams of apple ash, which contains not less than fifty (50) per cent of potassium carbonate.

3. Grape juice, grape must, is the fresh fruit juice obtained from grapes (*Vitis* species), has a specific gravity (20° C.) not less than 1.0400 and not exceeding 1.1240; and contains in one hundred (100) cubic centimeters (20° C.), not less than seven (7) grams nor more than twenty-eight (28) grams of total sugars, in terms of reducing sugars, not less than twenty (20) centigrams and not more than fifty-five (55) centigrams of grape ash, and not less than fifteen (15) milligrams nor more than seventy (70) milligrams of phosphoric acid (P_2O_5).

4. Lemon juice is the fresh fruit juice obtained from lemon, the fruit of *Citrus limonum* Risso, has a specific gravity (20° C.) not less than 1.030 and not greater than 1.040; and contains not less than ten (10) per cent of solids, and not less than seven (7) per cent of citric acid.

5. Pear juice, pear must, sweet perry, is the fresh fruit juice obtained from pears, the fruit of *Pyrus communis* or *P. sinensis*.

2. Sterilized Fruit Juices.

1. Sterilized fruit juices are the products obtained by heating fresh fruit juices sufficiently to kill all the organisms present, and correspond in name to the fruits from which they are obtained.

3. Concentrated Fruit Juices.

1. Concentrated fruit juices are clean, sound fruit juices from which a considerable portion of the water has been evaporated, and correspond in name to the fruits from which they are obtained.

4. Sweet Fruit Juices, Sweetened Fruit Juices, Fruit Sirups.

1. Sweet fruit juices, sweetened fruit juices, fruit sirups, are the products obtained by adding sugar (sucrose) to fresh fruit juices, and correspond in name to the fruits from which they are obtained.

2. Sterilized fruit sirups are the products obtained by the addition of sugar (sucrose) to fresh fruit juices and heating them sufficiently to kill all the organisms present, and correspond in name to the fruits from which they are obtained.

5. Fermented Fruit Juices.

1. Wine is the product made by the normal alcoholic fermentation of the juice of sound, ripe grapes, and the usual cellar treatment, and contains not less than seven (7) nor more than sixteen (16) per cent of alcohol, by volume, and, in one hundred (100) cubic centimeters (20° C.), not more than one-tenth (0.1) gram of sodium chlorid nor more than two-tenths (0.2) gram of potassium sulphate; and for red wine not more than fourteen-hundredths (0.14) gram, and for white wine not more than twelve-hundredths (0.12) gram of volatile acids produced by fermentation and calculated as acetic acid. Red wine is wine containing the red coloring-matter of the skins of grapes. White wine is wine made from white grapes or the expressed fresh juice of other grapes.

2. Dry wines is wine in which the fermentation of the sugars is practically complete and which contains, in one hundred (100) cubic centimeters (20° C.), less than one (1) gram of sugars and for dry red wine not less than sixteen-hundredths (0.16) gram of grape ash and not less than one and six-tenths (1.6) grams of sugar-free grape solids, and for dry white wine not less than thirteen-hundredths (0.13)

gram of grape ash and not less than one and four-tenths (1.4) grams of sugar-free grape solids.

3. Fortified dry wine is dry wine to which brandy has been added, but which conforms in all other particulars to the standard of dry wine.

4. Sweet wine is wine in which the alcoholic fermentation has been arrested, and which contains, in one hundred (100) cubic centimeters (20° C.), not less than one (1) gram of sugars, and for sweet red wine not less than sixteen-hundredths (0.16) gram of grape ash, and for sweet white wine not less than thirteen-hundredths (0.13) gram of grape ash.

5. Fortified sweet wine is sweet wine to which wine spirits have been added. By Act of Congress, "sweet wine" used for making fortified sweet wine and "wine spirits" used for such fortification are defined as follows (sec. 43, Act of October 1, 1890, 26 Stat., 567, as amended by section 68, Act of August 27, 1894, 28 Stat., 509, and further amended by Act of Congress approved June 7, 1906): "That the wine spirits mentioned in section 42 of this Act is the product resulting from the distillation of fermented grape juice to which water may have been added prior to, during, or after fermentation, for the sole purpose of facilitating the fermentation and economical distillation thereof, and shall be held to include the products from grapes or their residues, commonly known as grape brandy; and the pure sweet wine, which may be fortified free of tax, as provided in said section, is fermented grape juice only, and shall contain no other substance whatever introduced before, at the time of, or after fermentation, except as herein expressly provided; and such sweet wine shall contain not less than four (4) per centum of saccharine matter, which saccharine strength may be determined by testing with Balling's saccharometer or must scale, such sweet wine, after the evaporation of the spirits contained therein, and restoring the sample tested to original volume by addition of water: PROVIDED, That the addition of pure boiled or condensed grape must or pure crystallized cane or beet sugar or pure anhydrous sugar to the pure grape juice aforesaid, or the fermented product of such grape juice prior to the fortification provided by this Act for the sole purpose of perfecting sweet wine according to commercial standard, or the addition of water in such quantities only as may be necessary in the mechanical operation of grape conveyors, crushers, and pipes leading to fermenting tanks, shall not be excluded by the definition of pure sweet wine aforesaid: PROVIDED, however, That the cane or beet sugar or pure anhydrous sugar, or water, so used shall not in either case be in excess of ten (10) per centum of the weight of the wine to be fortified under this Act; AND PROVIDED FURTHER, That the addition of water herein authorized shall be under such regulations and limitations as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may from time to time prescribe; but in no case shall such wines to which water has been added be eligible for fortification under the provisions of this Act where the same, after fermentation and before fortification, have an alcoholic strength of less than five (5) per centum of their volume."

6. Sparkling wine is wine in which the after-part of the fermentation is completed in the bottle, the sediment being disgorged and its place supplied by wine or sugar liquor, and which contains, in one hundred (100) cubic centimeters (20° C.), not less than twelve-hundredths (0.12) gram grape ash.

7. Modified wine, ameliorated wine, corrected wine, is the product made by the alcoholic fermentation, with the usual cellar treatment, of a mixture of the juice of sound, ripe grapes with sugar (sucrose), or a sirup containing not less than sixty-five (65) per cent of sugar (sucrose), and in quantity not more than enough to raise the alcoholic strength after fermentation to eleven (11) per cent by volume.

8. Raisin wine is the product made by the alcoholic fermentation of an infusion of dried or evaporated grapes, or of a mixture of such infusion, or of raisins with grape juice.

9. Cider, hard cider, is the product made by the normal alcoholic fermentation of apple juice, and the usual cellar treatment, and contains not more than seven (7) per cent by volume of alcohol and, in one hundred (100) cubic centimeters (20° C.), of the cider, not less than two (2) grams nor more than twelve (12) grams of solids, not more than eight (8) grams of sugars, in terms of reducing sugars, and not less than twenty (20) centigrams nor more than forty (40) centigrams of cider ash.

10. Sparkling cider, champagne cider, is cider in which the after-part of the fermentation is completed in closed con-

tainers, with or without the addition of cider or sugar liquor, and contains, in one hundred (100) cubic centimeters (20° C.), not less than twenty (20) centigrams of cider ash.

Malt Liquors.

1. Malt liquor is a beverage made by the alcoholic fermentation of an infusion, in potable water, of barley malt and hops, with or without unmalted grains or decorticated and degerminated grains.

2. Beer is a malt liquor produced by bottom fermentation, and contains, in one hundred (100) cubic centimeters (20° C.), not less than five (5) grams of extractive matter and sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphates, and not less than two and twenty-five one-hundredths (2.25) grams of alcohol.

3. Lager beer, stored beer, is beer which has been stored in casks for a period of at least three months, and contains, in one hundred (100) cubic centimeters (20° C.), not less than five (5) grams of extractive matter and sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphate, and not less than two and fifty one-hundredths (2.50) grams of alcohol.

4. Malt beer is a beer made of an infusion, in potable water, of barley malt and hops, and contains, in one hundred (100) cubic centimeters (20° C.), not less than five (5) grams of extractive matter, nor less than two-tenths (0.2) gram of ash, chiefly potassium phosphate, nor less than two and twenty-five one-hundredths (2.25) grams of alcohol, not less than four-tenths (0.4) gram of crude protein (nitrogen x 6.25).

5. Ale is a malt liquor produced by top fermentation, and contains, in one hundred (100) cubic centimeters (20° C.), not less than two and seventy-five one-hundredths (2.75) grams of alcohol nor less than five (5) grams of extract, and not less than sixteen one-hundredths (0.16) gram of ash, chiefly potassium phosphate.

6. Porter and stout are varieties of malt liquor made in part from highly roasted malt.

Spirituous Liquors.

1. Distilled spirit is the distillate obtained from a fermented mash of cereals, molasses, sugars, fruits, or other fermentable substances, and contains all the volatile flavors, essential oils, and other substances derived directly from the materials used, and the higher alcohols, ethers, acids and other volatile bodies congeneric with ethyl alcohol produced during fermentation, which are carried over and in the ordinary temperatures of distillation and the principal part of which are higher alcohols estimated as amylic.

2. Alcohol, cologne, spirits, neutral spirit, velvet spirit, or silent spirit is distilled spirit from which all, or practically all of its constituents except ethyl alcohol and water are separated, and contains not less than ninety-four and nine-tenths (94.9) per cent (189.8 proof) by volume of ethyl alcohol.

3. New whisky is the properly distilled spirit from the properly prepared and properly fermented mash of malted grain, or of grain the starch of which has been hydrolyzed by malt; it has an alcoholic strength corresponding to the excise laws of the various countries in which it is produced, and contains in one hundred (100) liters of proof spirit not less than one hundred (100) grams of the various substances other than ethyl alcohol derived from the grain from which it is made, and of those produced during fermentation, the principal part of which consists of higher alcohols estimated as amylic.

4. Whisky (potable whisky) is new whisky which has been stored in wood not less than four (4) years without any artificial heat save that which may be imparted by warming the storehouse to the usual temperature, and contains in one hundred (100) liters of proof spirit not less than two hundred (200) grams of the substances found in new whisky save as they are changed or eliminated by storage and of those produced as secondary bodies during aging; and, in addition thereto, the substances extracted from the casks in which it has been stored. It contains, when prepared for consumption as permitted by the regulations of the Bureau of Internal Revenue, not less than forty-five (45) per cent by volume of ethyl alcohol, and, if no statement is made concerning its alcoholic strength, it contains not less than fifty (50) per cent of ethyl alcohol by volume, as prescribed by law.

5. Rye whisky is whisky in the manufacture of which rye, either in a malted condition, or with sufficient barley or rye malt to hydrolyze the strength, is the only grain used.

6. Bourbon whisky is whisky made in Kentucky from a

mash of Indian corn and rye, and barley malt, of which Indian corn forms more than fifty (50) per cent.

7. Corn whisky is whisky made from malted Indian corn, or of Indian corn, the starch of which has been hydrolyzed by barley malt.

8. Blended whisky is a mixture of two or more whiskies.

9. Scotch whisky is whisky made in Scotland solely from barley malt, in the drying of which peat has been used. It contains in one hundred (100) liters of proof spirit not less than one hundred and fifty (150) grams of the various substances prescribed for whisky exclusive of those extracts from the cask.

10. Irish whisky is whisky made in Ireland, and conforms in the proportions of its various ingredients to Scotch whisky, save that it may be made of the same materials as prescribed for whisky and the malt used is not dried over peat.

11. New rum is properly distilled spirit made from the properly fermented, clean, sound juice of the sugar-cane, the clean sound massecuite made therefrom, clean, sound molasses from the massecuite, or any sound, clean intermediate product save sugar, and contains in one hundred (100) liters of proof spirit not less than one hundred (100) grams of the volatile flavors, oils, and other substances derived from the materials of which it is made, and of the substances congeneric with the ethyl alcohol produced during fermentation, which are carried over at the ordinary temperatures of distillation, the principal part of which is higher alcohols estimated as amyllic.

12. Rum (potable rum) is new rum stored not less than four (4) years in wood without any artificial heat save that which may be imparted by warming the storehouse to the usual temperature, and contains in one hundred (100) liters of proof spirit not less than one hundred and seventy-five (175) grams of the substances found in new rum save as they are changed or eliminated by storage, and of those produced as secondary bodies during aging; and, in addition thereto, the substances extracted from the casks. It contains, when prepared for consumption as permitted by the regulations of the Bureau of Internal Revenue, not less than forty-five (45) per cent by volume of ethyl alcohol, and, if no statement is made concerning its alcoholic strength, it contains not less than fifty (50) per cent by volume of ethyl alcohol as prescribed by law.

13. New brandy is a properly distilled spirit made from wine, and contains in one hundred liters (100) of proof spirit not less than one hundred (100) grams of the volatile flavors, oils, and other substances derived from the materials from which it is made, and of the substances congeneric with ethyl alcohol produced during fermentation and carried over at the ordinary temperature of distillation, the principal part of which consists of the higher alcohols estimated as amyllic.

14. Brandy (potable brandy) is new brandy stored in wood for not less than four (4) years without any artificial heat save that which may be imparted by warming the storehouse to the usual temperature, and contains in one hundred liters (100) of proof spirit not less than one hundred and fifty (150) grams of the substances found in new brandy save as they are changed or eliminated by storage, and of those produced as secondary bodies during aging; and, in addition thereto, the substances extracted from the casks in which it has been stored. It contains, when prepared for consumption as permitted by the regulations of the Bureau of Internal Revenue, not less than forty-five (45) per cent by volume of ethyl alcohol, and, if no statement is made concerning its alcoholic strength, it contains not less than fifty (50) per cent by volume of ethyl alcohol as prescribed by law.

15. Cognac, cognac brandy is brandy produced in the departments of the Charents and Charents Inferieure, France, from wine produced in those departments.

G. Vinegar.

1. Vinegar, cider vinegar, apple vinegar, is the product made by the alcoholic and subsequent acetous fermentations of the juice of apples, is laevo-rotatory, and contains not less than four (4) grams of acetic acid, not less than one and six-tenths (1.6) grams of apple solids, of which not more than fifty (50) per cent are reducing sugars, and not less than twenty-five-hundredths (0.25) gram of apple ash in one hundred (100) cubic centimeters (20° C.); and the water-soluble ash from one hundred (100) cubic centimeters (20° C.) of the vinegar contains not less than ten (10) milligrams of phosphoric acid (P_2O_5), and requires not less than thirty (30) cubic centimeters of decinormal acid to neutralize its alkalinity.

2. Wine vinegar, grape vinegar, is the product made by the alcoholic and subsequent acetous fermentations of the

juice of grapes, and contains in one hundred (100) cubic centimeters (20° C.), not less than four (4) grams of acetic acid, not less than one (1.0) gram of grape solids, and not less than thirteen-hundredths (0.13) gram of grape ash.

3. Malt vinegar is the product made by the alcoholic and subsequent acetous fermentations, without distillation, of an infusion of barley malt or cereals whose starch has been converted by malt, is dextro-rotatory, and contains, in one hundred (100) cubic centimeters (20° C.), not less than four (4) grams acetic acid, not less than two (2) grams of solids, and not less than two-tenths (0.2) gram of ash; and the water-soluble ash from one hundred (100) cubic centimeters (20° C.) of the vinegar contains not less than nine (9) milligrams of phosphoric acid (P_2O_5), and requires not less than four (4) cubic centimeters of decinormal acid to neutralize its alkalinity.

4. Sugar vinegar is the product made by the alcoholic and subsequent acetous fermentations of solutions of sugar, sirup, molasses, or refiners' sirup, and contains, in one hundred (100) cubic centimeters (20° C.), not less than four (4) grams acetic acid.

5. Glucose vinegar is the product made by the alcohol and subsequent acetous fermentations of solutions of starch sugar or glucose is dextro-rotatory, and contains, in one hundred (100) cubic centimeters (20° C.), not less than four (4) grams of acetic acid.

6. Spirit vinegar, distilled vinegar, grain vinegar, is the product made by the acetous fermentation of dilute distilled alcohol, and contains, in one hundred (100) cubic centimeters (20° C.), not less than four (4) grams of acetic acid.

III. Salt.

1. Table salt dairy salt, in fine-grained crystalline salt containing on a water-free basis, not more than one and four-tenths (1.4) per cent of calcium sulphate ($CaSO_4$), nor more than five-tenths (0.5) per cent calcium and magnesium chlorides ($CaCl_2$ and $MgCl_2$), nor more than one-tenth (0.1) per cent of matters insoluble in water.

IV. PRESERVATIVES AND COLORING MATTERS.

a. Preservatives.

Standard preservatives are salt, sugar, vinegar, spices and their essential oils, wood smoke, edible oils and fats, and alcohol.

The use in food products of any other preservatives or antiseptics, or of any substance which preserves or enhances the natural color of a food product, or of a coloring matter, should not be permitted:

1st. If it is poisonous or injurious to health, under the conditions of its use in foods.

Among such substances are fluorides, beta-naphthol, formaldehyde, salts of copper, salicylic acid and its salts, boric acid and its salts, sulphurous acid and its salts, benzoic acid and its salts.

2d. If it has not been proved beyond reasonable doubt by scientific investigation to be harmless to health. Among such substances are abradol and saccharine.

3d. If it conceals in any way inferiority of the product or counterfeits or enhances a natural color.

WHY SHOULD HE?

A leading trade journal of New England, representing the grocery and other trades, calls loudly upon Dr. Wiley to resign his place as chief chemist of the Department of Agriculture and general food dictator for the country. This journal advances numerous reasons for demanding his retirement, including his alleged incapacity for the position, his peculiar behavior in connection with certain food investigations and his general attitude toward business interests.

Why should Dr. Wiley resign? Who could be blamed for refusing to give up such a chance to occupy the center of the stage? Besides, if he did resign, where—in view of his own admissions on the witness stand—is there a field for the exercise of his scientific abilities?—National Provisioner.

Wonder why nobody has suggested old Doc Wiley for Secretary of Agriculture in the new cabinet?—National Provisioner.

**REPORT OF JAMES WILSON
SECRETARY OF AGRICULTURE
FOR 1908**

The report of the Secretary of the Secretary of Agriculture for the present year covers 185 pages and presents only a summary of the work accomplished and engaged in by that department of government. Naturally not all of the report is particularly interesting to our clientele but as we are enabled to place the report fresh before our readers we abstract such portions of it as pertain to food and food control and the general summary of the work done and results obtained by the department of agriculture under the efficient guidance of James Wilson.

Mr. PRESIDENT:

I respectfully present my Twelfth Annual Report, covering the work of the Department of Agriculture for the year 1908.

The crops of the year and the other products of the farm first claim attention, after which the work of the Bureaus and other offices of the Department, in and outside of Washington, is summarized. Then follows a review of the progress of agriculture in this country during the last twelve years, with concise statements of the principal causes and the more prominent results.

AGRICULTURAL PRODUCTION IN 1908.

Total Value.

Billions upon billions the farmer has again piled his wealth. Production has been above the average of recent years all along the line, with few exceptions, and some prices have been up while others were down. After offsetting losses against gains, in comparison with 1907, there remains a net gain which raises the total value of all farm products of 1908 to the most extraordinary amount in the world's history, \$7,778,000,000.

This value is the result of estimates for all products itemized by the census and is based upon the census plan of valuation. While it includes some duplication, on the other hand it does not include some important items of wealth production, and the fact remains that the unthinkable amount of 7¼ billions of dollars of wealth have been produced by farmers this year for national sustenance and for export to the craving millions of foreign nations.

It is real, tangible wealth as it exists at the time it leaves the hands of the producer. It is about four times the value of the products of the mines, including mineral oil and precious metals. From these agricultural products the manufacturing and mechanical industries that use agricultural products as materials draw 86.8 per cent of their total materials, and these industries use 42 per cent of all materials used in the entire business of manufacturing. These figures indicate the extent to which the manufacturing industries are indebted to agriculture, although no recognition is given to this fact in usual statements of the value of manufactures.

INCREASE ABOVE FORMER YEARS.

The farm value of farm products this year is \$290,000,000 above the value for 1907, \$1,023,000,000 above that of 1906, \$1,469,000,000 above that of 1905, \$1,619,000,000 above that of 1904, \$1,861,000,000 above that of 1903, and \$3,061,000,000 above the census amount of 1899.

Expressed in the form of percentages of increase, the amount for 1908 was 4 per cent greater than that for 1907, 15 per cent over that for 1906, 23 per cent over that for 1905, 26 per cent over that for 1904, 31 per cent over that for 1903, and 65 per cent over that for the census year 1899.

* * *

In the aggregate the value of animals sold and slaughtered and of animal products at the farm amounts to about three-eighths of the value of all farm products, estimated upon the census basis. This value is getting closer and closer to \$3,000,000,000.

* * *

ENFORCEMENT OF FOOD AND DRUGS ACT.

At the beginning of the year no case had been brought for violation of the Food and Drugs Act of June 30, 1906, although the machinery for the enforcement of the act had been created. During the year, however, 135 cases were reported to the Attorney-General, 97 of these being for criminal prosecution and 38 for seizure and condemnation. Of the criminal cases, 14 have resulted in convictions, the fines ranging from \$5 to \$700 with costs. Of the 38 seizure and condemnation cases, 14 resulted in forfeiture and condemnation.

So far not a single case has been decided adversely to the Government.

The Solicitor has devoted much time and attention to the work of the Board of Food and Drug Inspection, of which he is a member. The consideration of questions submitted to the board for determination and the preparation of "Food Inspection Decisions" for the instruction and guidance of those who desire to conduct their business in strict conformity with this law have occupied much time and have been of far-reaching importance in securing compliance with the provisions of this act. Twenty-three of these decisions were prepared and published during the year. One of these (F. I. D. No. 86, "Original Packages"), prepared by the Solicitor, covered the relation of the original package to interstate commerce, and its preparation involved a careful review of all the leading Federal cases on the subject of interstate commerce. This decision has met with a most favorable reception by the legal profession and has been of great value to United States attorneys in handling cases under this act.

THE MEAT INSPECTION.

This was the second year of operation under the new meat-inspection law, and the experience gained has been productive of improvement in the methods of carrying on the work, while the regulations issued have been based on the best scientific knowledge and judgment available. There were engaged in this branch of the service at the close of the fiscal year 2,203 persons, of whom 616 were veterinary graduates. This force exercised a strict supervision over the slaughtering and packing operations at 787 establishments in 211 cities and towns. Compared with the previous year this is a gain of 79 establishments and 25 cities and towns.

As an example of the rigor of the inspection it may be stated that inspection was withdrawn from 8 establishments during the year because of violations of the regulations.

The present inspection deals not only with the health of the animals slaughtered for meat, but also with the sanitary conditions of preparation and honesty of labeling. The veterinary inspection before and at the time of slaughter is supplemented by subsequent examinations of the product, a laboratory inspection to determine the bacteriological and chemical conditions, and careful supervision of all of the various processes of preparing, curing, canning, etc. The thoroughness of the work has had the much-desired effect of greatly improving the sanitary condition of slaughterhouses and packing plants and of maintaining confidence in the wholesomeness of the products.

During the past year 53,996,511 animals were inspected before slaughter. Of this number 34,980,571 were hogs, 9,778,189 were sheep, 7,198,224 were cattle, 1,993,461 were calves, and 46,066 were goats. The animals inspected at slaughter numbered 53,973,337, an increase of 6 per cent over the previous year. Of these, 175,126 carcasses and 704,666 parts were condemned, 108,519 carcasses were passed for lard and tallow, and 53,689,692 passed for food. Tuberculosis was the cause of condemnation of about three-fourths of the cattle carcasses and about two-thirds of the hog carcasses that were condemned, and the majority of the other condemned hogs were affected with hog cholera and swine plague.

During the year the Government inspectors passed on nearly six billion pounds of meat-food products processed under their supervision.

There were condemned on reinspection during the year 43,344,206 pounds of meat products which had become sour, tainted, putrid, unclean, or, in the case of fats, rancid, since inspection at slaughter.

There was an increase of 13.8 per cent in the quantity of meats and products certified for export as compared with the previous year. Certificates to the number of 122,295 were issued, covering 1,545,761,808 pounds.

NEED OF STATE AND MUNICIPAL INSPECTION.

The Federal law has no power over products prepared and consumed within the limits of a State, and a large amount of the meat supply—almost one-half the entire slaughter of the country—comes within this class. The Department has found that the worst sanitary conditions exist at many abattoirs where such meats are produced. It is only natural that suspicious and diseased live stock, such as would fail to pass the Government inspection, find their way into these small establishments, to be thereafter sold and consumed within the State. The Department has, moreover, frequently found preservatives in meats prepared by local butchers. It is therefore very important that State and city health authorities should provide adequate protection to their people by inaugurating a system of abattoir inspection that will do away with the evils mentioned. Unfortunately but very few States

have as yet realized the importance of this matter. It should be emphasized also in this connection that a mere examination of meat exposed for sale is insufficient. The only way in which consumers can be protected against diseased meats is by competent veterinary inspection of the carcasses at the time of slaughter, and this is a class of inspection that is very seldom found aside from the Federal inspection.

BUREAU OF CHEMISTRY.

The report of the Chemist records the progress made during the first year of the execution of the Food and Drugs Act. The manifold difficulties in the organization and inauguration of such a work are apparent even upon superficial consideration of the subject; and, when one considers the scientific problems involved, the necessity of gaining the majority of the increased force, whether scientists or inspectors, and the double duty of securing justice for the manufacturer and the consumer alike, it is apparent that it is the part of wisdom to make haste slowly, particularly in regard to some decisions which are especially far-reaching in their effects. In putting the law into operation, every effort has been made to avoid working hardship upon any one. The decisions of the Board of Food and Drug Inspection as reached have been issued in a series of leaflets and have been widely distributed to manufacturers, dealers, and importers, that they might be aware of the attitude of the Department in regard to the points raised. At the same time much of the moral effect of the law depended upon a vigorous enforcement of its provisions, and such enforcement was plainly due the consumer for the protection of his health and his purse. It has been the endeavor of the Department to pursue a purely impartial and equitable course, giving due weight to all of these considerations.

INSPECTION UNDER THE FOOD AND DRUGS ACT.

The statistical statement of the samples taken and analyzed, seizures made, and prosecutions brought conveys practically no idea of the volume of work involved or the effect produced on the quality of food products. The number of branch laboratories has increased from 6, examining only imported products, to 21, analyzing both interstate and foreign samples. These laboratories are located at the following points, selected because of the control afforded interstate commerce: Boston, Buffalo, Chicago, Cincinnati, Denver, Detroit, Galveston, Honolulu, Kansas City, Mo., Nashville, New Orleans, New York, Omaha, Philadelphia, Pittsburg, Portland, Oreg., St. Louis, St. Paul, San Francisco, Savannah, and Seattle. The number of inspectors was increased during the year to 39 and approximately 13,400 samples have been collected and distributed among the branch laboratories and to the Division of Foods and the Division of Drugs of the Bureau of Chemistry. Inspectors are assigned to the branch laboratories and to such other points as afford an advantageous situation in regard to the interstate distribution of supplies. Of the samples analyzed and found to be adulterated, 814 were found to have been collected under such conditions that prosecution could be brought. Data in regard to such cases are checked first in the Division of Foods or the Division of Drugs of the Bureau of Chemistry at Washington and then are referred to the Board of Food and Drug Inspection for recommendation and reference to the Department of Justice for legal action.

In addition, the inspectors have collected data necessary to institute proceedings for the seizure of 86 shipments for confiscation by process of libel for condemnation. The shipments include cider, honey, coffee, flour, canned fruit, sirup, molasses, wine, meal, beet vinegar, stock feed, and canned vegetables. These seizures usually represent large quantities of the products, as, for example, 135 barrels of cider, 40 cases of coffee, 2,240 sacks of flour, or 1,078 barrels of wine. In some cases the shipment was destroyed, for instance, 84 bags of coffee colored with lead chromate. In many other cases, where only misbranding is involved and this may be corrected by relabeling, the goods are returned to the owner upon payment of costs and the delivery of a bond not to dispose of the product contrary to the law. This feature of the law has not proved uniformly desirable, inasmuch as the manufacturer has in some cases failed to comply with the terms of the bond, necessitating an additional expenditure of labor and money for his reaprehension.

In considering the volume of work accomplished by the inspectors, the difficulties attending the collection of interstate samples must be considered, there being marked differences between the conditions under which the State inspectors work and those attending the work of the Federal inspector. In the latter case interstate transaction must be shown and the samples must be identified with the shipment

received at that particular time, collection must be made in the original unbroken package, and it must be shown that the goods were received by the dealer subsequent to January 1, 1907. Further, the Federal inspector is not clothed with the police power conferred by the State, and no penalties are laid for hindering a Federal inspector in the performance of his duties. In this connection attention should be called to the fact that the manufacturers have shown a commendable spirit in their attitude toward the inspectors, and the steady growth in cooperation of manufacturers with the Government in the pure-food propaganda speaks well for the spirit in which the inspectors have done their work as well as for the progressiveness and honesty of the American manufacturer.

In addition to the collection of samples, the investigation of factories and work in cooperation with the chemists of the branch laboratories in conducting special investigations have played no small part in the activities of the inspecting force. The routine collection of samples of misbranded whiskies was supplemented by a special effort to locate large shipments of the product manufactured from neutral spirits and misbranded, under the decision of the Attorney-General, as straight whisky or blended whisky. Seizures have been made to the extent of 82 barrels and 6,702 cases, action in regard to the greater part of which is pending, and libel proceedings have been requested affecting 625 barrels and 31,359 cases of food and drug products.

Other subjects of special investigation by the inspecting force include distilled colored vinegar labeled as pure apple or cider vinegar; durum wheat flour bleached and marketed under a brand that was misleading as to quality; watered or adulterated milk entering into interstate commerce at certain large centers; edible gelatin as associated in its manufacture with the gelatin used in the arts; and packages of cheese overmarked as to weight. As the inspectors in the present year will be called upon more and more to serve as witnesses in the courts, and the work of organization is now practically complete, it is apparent that the inspection force must be largely increased to insure a thorough enforcement of the law.

SPECIAL FOOD AND DRUG INVESTIGATION.

Flour.

A cooperative investigation in regard to the bleaching of flour and the use of durum wheat in flour milling was undertaken at the St. Paul, Chicago, and Washington laboratories, with the aid of the inspectors. In regard to the use of durum wheat, the leading millers were interviewed, the composition of 47 samples was determined, and a study was made of wheat mixtures affording information which had been much needed in regard to the branding of wheat flour. Seizures have been made and judgments obtained as to the misbranding of wheat flours which were mixed with flour from durum wheat and labeled hard spring flour. The investigation in regard to bleaching flour was more extensive, as it called for a thorough study of the methods of grading and the results of baking tests, as well as chemical and physical examinations, before a conclusion could be reached. Over 1,000 determinations have been made in this study, and the investigation is nearing completion.

CANNED GOODS.

Special investigations, combined with factory inspection, have been made in regard to the canning of peas and the making of tomato ketchup. In the former case studies as to the grading of the product in connection with the question of proper branding have been made, and the effects of bleaching and the causes of spoilage have been studied. The ketchup experiments were made at a factory offered for the purpose, and included the manufacture of ketchup without preservatives, the causes of spoilage, the length of time elapsing both before and after opening when spoilage would take place, no preservative being present. Studies were also made of the antiseptic value of the spices, sugar, and vinegar employed. Methods of processing were also studied, and commercial brands were examined and compared with the experimental product. In connection with these studies it is of interest to note the increasing importance of the microscope in the detection of adulteration, the presence of bacteria, fungi, and other signs of fermentation and decay being easily demonstrable by micro-chemical examination.

DRUG INVESTIGATIONS.

The investigation of imported drugs involved the examination of 568 samples, representing many phases of adulteration and misbranding. Illustrative of these may be mentioned dandelion root, adulterated with 20 to 40 per cent of sand and small pebbles; belladonna root, highly adulterated with

poke root; callendula flowers, colored with saffron, imported for the purpose of adulterating saffron after its importation; and medical preparations accompanied by circulars containing false or misleading statements.

The examination of chemical reagents delivered to the Bureau of Chemistry is a very important item, underlying as it does the accuracy of the analytical work, and marked improvement has been effected in the quality of the chemicals delivered.

UNFERMENTED FRUIT JUICES.—Experiments in the manufacture of unfermented fruit juices without the use of preservatives have been conducted on an extensive scale. Tests of methods of manufacture and of storage in glass, in tin, and in wood, including shipping tests, have been made, and it has been positively proven that palatable beverages may be made and may be kept by sterilization by heat only. This work is of interest both to the manufacturer and to the farmer who can make profitable use of fruit products not marketable and which in most cases go to waste.

DISTILLED LIQUORS.—The manufacture and handling of distilled spirits was studied in detail. This work included an inspection of the large distilleries of the country and the inauguration of experimental work at a Kentucky warehouse, where 60 barrels received from various distillers were set aside to determine the effects of various methods of treatment. Other phases of the investigation include careful studies of the methods of analysis and the determination of the composition of American whiskies, based on a large number of samples obtained from the principal distilleries of this country.

HONEYS.—A chemical and microscopical study of honeys of known origin and of commercial honeys had a direct bearing on the questions arising under the food law in regard to interstate samples. Careful studies of methods of analysis were made for the determination of adulterants, and the microscopical studies serve to identify the honeys as to their source by ascertaining from the pollen grains present the plants visited by the bees, the labels generally stating that the honey is from some particular floral source. Seizures of honey containing invert sugar and glucose have been made, and the data obtained in this investigation were needed for practical application.

LEMON EXTRACTS.—Claims made in regard to the large quantities of lemon extract imported, especially from Italy and Sicily, could not be substantiated otherwise than by a study of the conditions under which the product was made, as it was claimed that certain variations were due to local conditions. The lemon-oil industry in Sicily was accordingly investigated and the exhaustive line of samples is now being analyzed. The data thus afforded will solve the problem presented by this line of imported goods.

COMMERCIAL ALCOHOL.—The study of the manufacture of industrial alcohol from the wastes of the farm and of sugar-producing plants has been inaugurated on a large scale. A plant manufacturing 75 gallons per day has been installed, and experimental runs, using corn, melons, small fruits, canning wastes, etc., will be made on a commercial scale. From these experiments it is expected that calculations can be made as to the comparative value of different wastes and materials for this purpose.

REVIEW OF TWELVE YEARS.

In presenting an account of the work of the Department it may be worth while to survey the last twelve years of endeavors, and of their fruition and promise, to which not only this Department has contributed, but also the experiment stations, the agricultural schools and colleges, the State boards and commissioners, the agricultural press, and the farmers themselves in their individual and collective efforts.

Momentous changes have occurred to agriculture in this country during the last dozen years. Features of great import have been introduced. Forces have become operative whose results are already enormous, with the certainty of cumulative and accelerated future consequences for the nation's good and well-being. The farmer's work and harvest have had the benefit of more varied knowledge and more effective intelligence. His life and living have undergone transformations which increasingly make the farm preferable to the town.

Under this head are discussed changes from low to profitable prices: Sea Island cotton, corn breeding, Florida sweet orange, new strains of farm animals, introduction of durum wheat, rice, sugar beets, alfalfa demonstration work, dry farming soils and their treatment, hydrocyanic acid gas in the

destruction of San Jose scale, and miscellaneous and various discoveries and improvements.

PURE FOOD AND DRUGS.

Throughout this period the researches of chemistry into the composition of foods and their sophistication, and the publication of these results, have been slowly creating the public opinion which resulted in the passage of the food and drugs act of June 30, 1906. Back of this result lies a mass of laborious detailed work and scientific research necessary to differentiate between pure and impure products, to establish standards, to prove to the manufacturer the practicability of maintaining such standards, and insure their maintenance in the courts. Should this seem a far cry from the progress of agricultural chemistry, it must be remembered that the repression of sophistication means the increased demand for the best and purest products, besides the protection of the public health.

The report of the Chemist for 1897 contained plans for work on infants' and invalids' foods and the study of cereals and milling products; the report for 1908 contains the account of the first year's work under the pure food and drugs act, with a fully organized corps of 40 inspectors at work in the field, 21 inspection laboratories scattered through the country, and behind these, as they were behind the first movement toward the law, scores of specially trained chemists and bacteriologists, performing not only the mass of routine chemical work necessary to inspection, but conducting researches into every phase of food and drug chemistry necessary to the just enforcement of the law. The public health ranks very high in the welfare of the Nation, and without the progress which has been made in agricultural chemistry, though it be detailed and not capable of description under specific discoveries, the need of the food law would hardly have been discovered and the public opinion necessary for its passage could not have been aroused, nor could its provisions have been executed after its passage.

That foods should be wholesome and what they are represented to be is insured by chemical inspection and examination; that drug products of known quality should be available for the use of the physician, and that injurious or, at best, worthless preparations should not be foisted upon the people without their knowledge, are among the services rendered to the community by agricultural chemistry in the broad sense in which the enlightened policy of the past decade has interpreted it.

* * *

CONCLUSION.

The foregoing review of agriculture in the United States during the last dozen years and of the progress made by the farmer has necessarily been highly condensed, and from it has been omitted a vast amount of information which, being in the form of details, would detract from the review as it stands. Enough has been presented, however, to establish the fact that agriculture has made wonderful progress and permanent advancement, and that the farmer in results of information, intelligence, and industry has thriven mightily. The progress that has been made is in the direction leading to popular and National welfare, to the sustenance of any future population, as well as to a larger efficiency of the farmer in matters of wealth production and saving, and in establishing himself and his family in more pleasant ways of living.

Details of the work of the Department are contained in the accompanying reports of the various Bureaus, Divisions, and Offices, the publication of which in connection with this report is respectfully recommended.

Respectfully submitted,

JAMES WILSON,
Secretary.

WASHINGTON, D. C.,
November 27, 1908.

BAKERS STARTLED BY FOOD EXPERT.

Prof. M. E. Jaffa, a member of the faculty of the state university and of the staff of the state food and drug laboratory, startled the members of the Pacific Coast Master Bakers' Association recently by telling them that suet fat, instead of paraffine, is now used as an adulterant in the manufacture of confectionery. Prof. Jaffa said that the use of paraffine had been discontinued because it was found to be absolutely indigestible, so much so, in fact, that it was insoluble even in sulphuric acid.—Eli Grocer.

"BENZOATE OF SODA WINS IN WISCONSIN."

Dairy and Food Commissioner I. Q. Emery of Wisconsin, in what he considered to be his duty under the Wisconsin food law, issued a ruling in which he classed foods containing benzoate of soda as adulterated and threatened to prosecute retail dealers who should be found handling such goods, whether the presence or amount of preservative was proclaimed or not.

On the 24th of November Williams Bros. Company of Detroit, Mich., and Curtice Bros., of Rochester, N. Y., filed an injunction bill in the United States Court, Judge Sanborn sitting, against Mr. Emery, seeking to restrain him from prosecuting or threatening to prosecute dealers in tomato and cucumber food products prepared with benzoate of soda.

The bill alleged that the use of benzoate of soda in foods is harmless and inoffensive and that, especially catsups and sweet pickles, would spoil, soon after opening, unless some preservative was used in them. It further alleged that the federal authorities permitted its use generally, and that the army and navy department of the United States required the catsups purchased for the use of the soldiers and sailors to be prepared with benzoate of soda. It further alleged that the total annual business of food products in the United States prepared with benzoate of soda amounted to the sum of \$60,000,000. It was charged that the food commissioner claimed that the use of benzoate of soda in food products was illegal and that he had threatened to prosecute dealers who sold it, thereby greatly injuring the business of the complainants in this state.

The complainants claimed that the proposed action of the food commissioner would be illegal because the statutes of Wisconsin do not give him authority to establish any standard; also because the statutes with relation to the use of preservatives are unconstitutional in that they seek to delegate legislative authority to an executive board. The complainants claimed that any representations of the commissioner to the effect that complainants' goods do not comply with the statutes of the state is a libel upon the complainants.

The attention of the court was called to the fact that President Roosevelt had appointed a referee board of consulting scientific experts to examine into and report whether or not the use of benzoate of soda in food products was harmful. The board consists of Dr. Ira Rensen, president of Johns Hopkins University, chairman; Prof. R. H. Chittenden of Yale, Dr. John H. Long of Northwestern University, Dr. A. E. Taylor of the University of California and Dr. C. A. Herter of the College of Physicians and Surgeons of New York City.

Judge Sanborn thought that the business of the complainants should not be disturbed prior to the report of the board of scientific experts, thus following the practice of the federal food department. Commissioner Emery expressed his willingness to accept the suggestion of the court, and bring no prosecution because food products might contain benzoate of soda and to desist from representing that the sale of such food products was unlawful.

OFFICIAL RULING OF JUDGE SANBORN IN THE PURE FOOD LITIGATION.

"The complainants of Detroit, Mich., have applied for a temporary injunction. They allege that they are

large manufacturers of tomato catsup and like articles, which they sell in this state, their business, as alleged, amounting in Wisconsin to over \$100,000 per annum. In putting up their goods they use benzoate of soda to the extent of one-tenth of one per cent, as a preservative.

"Defendant is dairy and food commissioner of Wisconsin, and is charged with the enforcement of the pure food laws of the state. Section 4601a makes it a misdemeanor to sell any fruits or canned goods containing any preservative other than sugar, salt, vinegar or spices. Section 4601a forbids the shipping or sale of any article of food which contains any preservative except certain specified ones, not including benzoate of soda, without disclosing to the purchaser the presence, name and proportionate amount of such preservative. This is done by complainants by a statement on the label on the bottles containing their articles, showing that they contain one-tenth of one per centum of benzoate of soda.

"There has been considerable disagreement among chemists whether benzoate of soda is injurious to health. Early in 1908 the national bureau of chemistry decided that it was. Thereafter their decision was modified by the national food and drug inspection board. A commission of five scientific experts from the several universities has since been appointed by the president to examine and report on the question.

"Mr. Emery, as dairy and food commissioner, following the lead of the bureau of chemistry and the secretary of agriculture, has decided to test the question whether benzoate of soda is injurious to health, by bringing some case under the Wisconsin law, procuring the verdict of a jury and following up a final decision. This he conceives to be his duty as such commissioner, under Chapter 33 of the Laws of 1905, which prohibits the selling of any article of food containing any preservative injurious to health. It is claimed that his attitude has to some extent interfered with the sale of the complainants' goods in the state. Complainants ask that he be restrained from prosecuting their consignees or dealers, on the ground that benzoate of soda is not injurious to health, and that they are unable to find any substitute for it in the preparation of their goods. They allege that his action is unlawful and unnecessary and will cause them irreparable injury.

"Mr. Emery, being in court on the hearing, and also represented by Mr. Jackson, deputy attorney general, was asked by the court whether he was willing to postpone bringing a test case against complainants or their dealers or consignees, until the commission appointed by the president shall have reported. It is expected that the commission will report by the first of March, 1909. After consideration, this was agreed to by Mr. Emery, with the proviso that he does not agree not to bring suit or otherwise take cognizance of any fraud on the Wisconsin pure food law by the use of a greater amount of any preservative or other article or substance than is shown to the purchaser on the label of the goods sold or not to otherwise perform his duty under said law; he simply stipulating on the assumption that the labels of the complainants state the facts, that he will postpone any interference with complainants' business on the ground that the use of benzoate of soda is injurious to health, until the report of said commission.

"It is therefore ordered that the said application be,

and the same hereby is, held in abeyance until the report of said commission."

The attorneys in the case were Elliot O. Grosvenor and W. Baldwin of Detroit for the plaintiffs and Deputy Attorney General Russell Jackson for Dairy and Food Commissioner Emery.

We are indebted to the "Wisconsin Democrat" for Judge Sanborn's decision and a detailed account of this case.

LETTER FROM THE OHIO DAIRY AND FOOD COMMISSIONER.

November 14, 1908.

To Dealers in Dairy Products:

As the name indicates, this department is charged with the enforcement of the laws pertaining to the production and sale of milk and other dairy products.

I believe much good can be done to improve the cleanliness and wholesomeness of these products.

It is my intention to give the dairy business much more attention in the future than it has received by this department in the past, and with this end in view—so far as appropriations and means at my command will permit—dairy inspectors will soon be specially detailed to inspect dairies, creameries and other places where milk is produced or handled.

This work will demand the co-operation and assistance of all dealers in and producers of these articles. The producers should use greater care in the treatment of their cows as to health and feed, and have all surroundings and utensils in good, clean and sanitary condition. The dealers, including creamery men and cheese factory operators, should use the same care in handling their products. They should provide themselves with the necessary testing apparatus and should be able to operate it accurately and correctly.

I call your attention to the requirements of the Ohio law:

The standard for milk requires that it shall contain not less than 12 per cent solids and 3 per cent fats.

Milk from which a part of the fats has been removed shall be labeled and sold as skimmed milk.

There is no fixed standard for cream.

Condensed milk shall be made from whole milk.

Butter shall be made wholly from pure milk products.

Renovated or process butter shall be made wholly from pure milk products and shall be labeled and sold as such.

Oleomargarine is an imitation of butter, not made wholly from pure milk products, and shall be labeled and sold as such, and shall be free from artificial coloring matter.

Cheese, including cream cheese, Ohio state full cream cheese, or full milk cheese, shall be made wholly from pure milk products and contain not less than 30 per cent butter fat.

Skimmed cheese shall be made wholly from pure milk or cream, and may contain less than 30 per cent butter fats.

Filled cheese is an imitation cheese, not made wholly from pure milk products, and shall be labeled and sold as such.

Milk shall not be sold in the following instances:

1. From cows fed on unhealthy feed.
2. From cows fed on wet distillery or starch waste.
3. From diseased or sick cows.
4. From cows kept in a place that is unclean or in an unsanitary condition.

5. From cows kept in a cramped or unhealthy condition.

6. When water or other foreign substance has been added.

7. When it is unclean, impure, unhealthy or unwholesome.

The principal feature of the law now demanding attention is to improve sanitary conditions in the production and handling of dairy products, having in mind the healthfulness of the cows, surroundings of the barns, the cleanliness of the utensils and the healthfulness and cleanliness of attendants.

I should be glad to receive any complaint or suggestion that in your judgment may be of service in this work. Yours truly,

RENICK W. DUNLAP,
Commissioner.

TWO PENNSYLVANIA BULLETINS.

The October number of the Dairy and Food Division of the Pennsylvania Department of Agriculture contains articles on the following subjects:

"Why the Food Laws Came."

"The Milk Supply and the Children."

"The Chronic Violator of Law."

"Meeting of State Retail Merchants."

And comments on numerous other subjects, including one on groceries and pure cider vinegar.

The November bulletin contains articles on the following subjects:

"Guarding the Milk Supply."

"Cold Storage Eggs and Fowls."

"Keeping the Members Posted."

"Potatoes Without Dirt."

"The National Food Law."

"Purity of Food Products."

A debate concerning preservatives (from American Grocer) and comments on the topics of the day.

There is also an article by Edwin G. Eckert, secretary of the Association of Ice Cream Manufacturers of Pennsylvania on "Sanitary Supervision of Ice Cream Factories," also tabulated results of the routine work of the department.

BLENDED MAPLE SYRUP CASE.

On November 28th, Federal Judge Taylor of Ohio imposed a fine of \$50 and costs upon H. Y. Scanlon for selling a mixture of maple and cane syrup branded "Western Reserve Ohio Blended Maple Syrup." The case was brought on information filed by District Attorney Day, the government contending that inasmuch as there was an admixture of cane syrup there could not be a blend but a mixture and that to be a blend there must be two articles of the same substance. Dr. Wiley was in communication with Attorney Day during the trial and was particularly interested in getting a decision on the point of what constitutes a mixture and a blend presumably for its application in the whisky case soon to be brought to trial.

OHIO FOOD AND DRUG LAWS COMPILED.

Dairy and Food Commissioner Renick W. Dunlap of Ohio has compiled and just issued a most comprehensive annotated forty-two-page pamphlet containing all the food and drug laws of that state. Commissioner Dunlap was re-elected November 3 for a term of two years beginning February 19, 1909.

PRESIDENT ROOSEVELT NAMES NEW WHISKY BOARD.

Appoints Commission to Solve Problem—Will Give Liquor Definition—Secretary Wilson, Commissioner Capers, and F. L. Dunlop Will Determine When "Whisky Is Whisky" and Ruling Will Settle the Question.

President Roosevelt, to ease the minds of distillers and settle definitely the policy of the government toward whisky of the blended variety in the enforcement of the pure food law, on December 9 named a commission of three to decide the troublesome question, "When is whisky whisky?" Secretary of Agriculture Wilson, Internal Revenue Commissioner Capers, and F. L. Dunlop, of the Department of Agriculture, constitute the commission. Their duty is to make recommendations for future action, which will in effect constitute the governmental regulations.

The visit of a delegation of distillers, escorted by Senator Hopkins and Representative Graff, of Illinois, the climax of many pleas for a reopening of the case, prompted the president to act immediately. The distillers are anxious to avoid litigation arising out of the fact that the internal revenue bureau has applied the decision of Attorney General Bonaparte on what constitutes whisky under the pure food law to regulations of the bureau of long standing. Distillers therefore claim to be greatly confused over the method of labeling their product.

The President stated to the committee which called upon him that there were some things about the matter which he had never understood before and his reopening the matter and referring it to the commission of which not the chief of the chemical bureau but a subordinate is a member, cannot be regarded as a strong indorsement for Dr. Wiley.

NO ADULTERATED DRUGS IMPORTED INTO LOUISIANA.

On request of W. S. Howell, secretary of the Louisiana section, Society of Chemical Industry, we publish the following:

"At the last meeting of the Louisiana section of the American Chemical Society on Nov. 20th, the committee on drug investigation, consisting of Drs. Asher, Jones and Guidry, reported that there have been no importations of impure drugs at this port during the past 15 months, and the charge that this port was used to bring in adulterated drugs which were refused admittance at the port of New York, was refuted.

KANSAS BULLETIN.

The November bulletin of the Kansas State Board of Health contains along with statistical matter articles on the following subjects: "The Condition of Milk Served to Customers in State of Kansas," by Frederick H. Billings and Frank U. Agrellius of the University of Kansas. "Milk Inspections," by Geo. M. Whitaker, Dairy Division, United States Department of Agriculture; "House Wastes" (illustrated), "Eggs and Poultry," and "Echoes from the International Congress of Tuberculosis," the latter being abstracts of several papers read at the last congress held in Washington, D. C.

BLEACHED FLOUR RULING.

Full Text of Secretary Wilson's Ruling.

Under date of December 10 James Wilson, U. S. Secretary of Agriculture, issued the following ruling relative to bleached flour:

"Flour bleached with nitrogen peroxide, as affected by the Food and Drugs Act of June 30, 1906, has been made the subject of a careful investigation extending over several months. A public hearing on this subject was held by the Secretary of Agriculture and the Board of Food and Drug Inspection, beginning November 18, 1908, and continuing five days. At this hearing those who favored the bleaching process and those who opposed it were given equal opportunities to be heard.

"It is my opinion, based upon all the testimony given at the hearing, upon the reports of those who have investigated the subject, upon the literature and upon the unanimous opinion of the Board of Food and Drug Inspection, that flour bleached by nitrogen peroxide is an adulterated product under the Food and Drugs Act of June 30, 1906; that the character of the adulteration is such that no statement upon the label will bring bleached flour within the law; and that such flour cannot legally be made or sold in the District of Columbia or in the territories, or be transported or sold in interstate commerce, or be transported or sold in foreign commerce except under that portion of section 2 of the law which reads: 'Provided, That no article shall be deemed misbranded or adulterated within the provisions of this act when intended for export to any foreign country and prepared or packed according to the specifications or directions of the foreign purchaser, when no substance is used in the preparation or packing thereof in conflict with the laws of the foreign country to which said article is intended to be shipped.'

"In view of the extent of the bleaching process and of the immense quantity of bleached flour now on hand or in process of manufacture, no prosecutions will be recommended by this department for manufacture and sale thereof in the District of Columbia or the territories or for transportation or sale in interstate or foreign commerce for a period of six months from the date hereof."

PATENT OFFICE WILL NOT REGISTER PURE FOOD LAW INSCRIPTION.

The commissioner of patents in a ruling just issued refuses to grant a trade-mark on a label bearing the inscription "guaranteed under the pure food and drug acts, June 30, 1906," where such inscription is intended to imply that the government is responsible for the purity of the goods. It is claimed that hundreds of packers and others throughout the country are so printing their labels as to give this impression, whereas it is held by the officials that the government simply accepts the assertion of the manufacturer that the goods are pure, subject to investigation. Upon proof that the pure food and drugs act is being violated the goods are subject to confiscation and the manufacturer to punishment.

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THE PROPOSED UNIFORM STATE FOOD LAW.

The Uniform Food Law Committee of the National Association of State Dairy and Food Commissioners has recommended a uniform food law for states, which proposed law is printed elsewhere in this issue. This law is decidedly different from the national law and quite different also from the law of any state on the same subject. With many of the provisions of this law, as a state food law, this journal is in hearty accord. It is hardly possible to frame a food law which will satisfy everybody, and we venture to say that the proposed law will meet with much opposition from almost every section of the country. It will meet with opposition from those who have adjusted their business to meet the requirements of the national law. It will put to shame or should put to shame a few who insisted that the present national law was the acme of perfection—the *ne plus ultra* of food laws—and that anyone opposed to the slightest syllable was a food heretic, a believer in poisonous foods and in the employ of the "special interests."

The proposed law has one feature which long and energetically has been urged by this journal—namely, the incorporation of standards into the law itself. This should obviate all rules and regulations of the Food Commissioner which cause so much instability in food-control work and places a power into the hands of one man not contemplated in our system of government nor desirable. The citizen in the conduct of business is entitled to know just what law he must live by. While it is highly desirable to incorporate rulings, standards of composition, and definitions into the food laws, it seems to this journal that it is very unfair to the organization from which they derived authority and to the Committee on Standards lately appointed by that organization, that they ignore that committee in incorporating standards which were not framed by the committee, and inferentially discredited by the parent organization. The work looks like an attempt to bolster up a weak and tottering proposition. The more so as there was no necessity at this time of naming the standards, as the proposed law will not be accepted on the jump by the legislators of the several states. It would have been far more courteous and in the end advantageous to have recommended in the proposed state food law the food standards and definitions to be framed by the Association of State Dairy

and Food Departments. The Uniform Food Law Committee was certainly not appointed to formulate or adopt standards, or another committee for that express purpose would not have been appointed at the same time. It is but another illustration of the attempt of the governmental ring to dictate to their own interest the propositions affecting the commercial interests of the country.

The proposed state law as drafted means perpetual conflict with the national law. Until the last state adopts the law the national law can not be modified on constitutional grounds to harmonize with the state laws. When that day arrives which will not be soon, if at all, the national law will be in effect identical with the national food bill urged by the AMERICAN FOOD JOURNAL and presented to Congress for its consideration. The AMERICAN FOOD JOURNAL's bill, however, had this advantage, that it would be efficient and virile in every state according to the desire of the people of the state, without regard to the action of its neighbors or any other state.

Doubtless in coming issues we shall have more to say concerning this bill, and in the meantime we invite food commissioners and chemists and manufacturers and tradesmen to write their opinion of the proposed law for publication in this journal.

"CUFORHEDAKE BRANE FUDE."

The first contested case under the National Food and Drugs Act resulted in a conviction, the second in an acquittal. The first case was under the drugs section of the act, the second under the food section. The first was in the District of Columbia, the second in the States. Both involved only the question of misbranding. The first case involved the misbranding of a headache remedy known as "Harper's Cuforhedache Brane Fude," which was claimed to be guaranteed under the Food and Drugs Act and to be a relief for headache and to be harmless and to contain no poisonous ingredient of any kind. Each ounce was said to contain sixteen (16) grains acetanilid and thirty (30) per cent alcohol.

Evidence was introduced by the Government to establish the fact that it was not a cure for headache, that it was not a brain food, that it was not harmless and that it *did* contain poisonous ingredients, namely acetanilid and antipyrin, and that the percentage by volume of alcohol was 24.2 per cent instead of 30 per cent, as claimed.

The Judge's instruction to the jury was practically a plea for a verdict for the Government, and he laid particular stress on the proposition that according to the laws, if the jury should find the drug misbranded in any particular, they should find the defendant guilty.

Under the instructions, therefore, it is impossible to say on what count the jury found a misbranding. The Judge sided with the defendant on the words "cure" and "relief." The jury need not have deliberated long on whether the name "brain food" was a misnomer. If the drug had any virtues as a brain food, the discoverer and manufacturer would not have selected the name "cuforhedake brane food," but after the first dose of his own medicine would have immediately applied for admission to the spelling courses in the public schools.

There can be but little doubt that unless dosage is considered both acetanilid and antipyrin must be re-

garded as poisonous, as for that matter must alcohol, caffeine and all other ingredients in the preparation except water. The instructions of Judge Kimball and the verdict of the jury seem to point to the necessity for the omission of the word "harmless" from all food and drug preparations or else qualify the word with a statement as to dose or amount regarded as safe and whether for an adult or infant, male or female.

If the jury could have specified the individual counts on which the product was regarded as misbranded, a line on the accuracy of the statement as to the amount of alcohol in drugs might have been obtained. However, it is evident that the Government expects a closer approximation than 5.8 per cent, whether too little or too much.

The product was also misbranded and contained a misleading statement in the words "Guaranteed under the Food and Drugs Act, June 30, 1906, No. 6707," which conveyed the impression to the consumer that the product was actually guaranteed by the Government.

As this misbranding was connived at and actually suggested if not demanded by the Government, we must excuse the failure to make this misbranding an additional count against the label of the commodity.

Mr. Harper has now paid the \$700 fine imposed and evidently does not intend to carry the case to a higher court, but we understand will continue to defend what he regards as his rights in the matter. We venture the opinion that he will discover another and better name for his no doubt meritorious preparation.

The second contested case was one in which a mixture of molasses and glucose was branded "molasses," and in an obscure or less prominent place labeled as being a mixture of molasses and glucose. The Government claimed the words qualifying the label were not as conspicuous as they should be and therefore the product was misbranded—and lost.

DENATURED ALCOHOL IN FRANCE.

Denatured alcohol in the United States has not been the boon to infant industry which its friends fondly hoped and even prophesied before the committees of Congress. It is not of course to be expected that the industry in two years would reach the proportions attained in England, Germany and France, where it has been in successful and increasing use for many years. According to Mr. Frank H. Mason, our industrious consul general of Paris, France, the production of alcohol in France increased about 500,000 hectoliters in the last five years. As one hectoliter equals 26.42 gallons, this equals approximately 13,000,000 gallons.

In 1907 alcohol was produced from the following substances:

Derivatives.	Gallons.
Grains	11,998,430
Molasses	12,327,783
Beets	30,262,339
Wines	6,337,550
Apples and pears	1,830,456
Grape skins and lees	3,239,303
Other fruits	440,104
Various substances	5,310
Total	66,441,275

In France but one formula for denatured alcohol is allowed and the mixing must be done in presence of a

government official. To 26.42 gallons or 100 liters of spirits is added the following denatured mixture: 15 liters methyl alcohol (wood alcohol), $\frac{1}{2}$ liter of heavy benzine, 1 gram of malachite green.

It thus differs from the denatured alcohol of the United States in containing about 5 per cent more methyl alcohol and coloring. It would seem that the French denatured alcohol would be less applicable in the arts and industries than the American article, and when we consider that in the United States special denaturants are allowed for special industries there is no reason why denatured alcohol should not find much wider application in this country than in Europe. The uses to which denatured alcohol were put in France and the amounts in the year 1907 were as follows:

	Hectoliters.
Heating and lighting	401,230
Varnish	13,386
Cabinet making	1,190
Celluloid, etc.	17,133
Hat manufacture	297
Dyes and colors	632
Rennet liquid	178
Collodion	750
Chloroform	101
Chloral	155
Tanning	510
Chemicals, soap, artificial silk, etc.	10,400
Scientific uses	1,302
Ether, fulminates, and explosives	146,572

Total hectoliters 593,836

This shows a total denaturation in 1907 of 15,689,246 gallons.

The cost of denatured alcohol in France varies from year to year and with the quality of alcohol. The retail price in 1907 was about 47 cents per gallon, or about one-half the price asked in the United States for this product. This is in part due to the cheaper labor and the utilization of waste products in France.

SEVEN SUITS STARTED IN CHICAGO.

On Wednesday, December 9, seven criminal suits against five Chicago firms for violation of the pure-food law were filed by District Attorney Edwin W. Sims and Assistant District Attorney Chester A. Legg in the United States District Court.

The firms charged with violations are: Reid, Murdoch & Co., two cases; the Eyelin Company, one case; John A. Tolman & Co., one case; the Gowan Medicine Company, one case; Thompson & Taylor Spice Company, two cases.

Reid, Murdoch & Co., it is charged, made two shipments of Monarch Extra Cream olive oil which was misbranded and not of the quality or purity represented. The Thomson & Taylor company is charged with shipping lemon flavor which contained no lemon juice, as represented. The shipments are alleged to have been made to the Pixley-Wilson Grocery Company and the Kansas City Wholesale Grocery Company, both at Kansas City.

John A. Tolman & Co. is alleged to have made a shipment of misbranded topmost cane and maple sirup to Dutton & Sorenson, grocers, Algona, Iowa. In the case of the Gowan company a misbranded package of a pneumonia cure is alleged to have been shipped to the Washington wholesale drug exchange, Washington, D. C. "Repairs and rejuvenates the eye and

sight" is an alleged illegal and false brand placed on a medicine sold by the Eyelin Company, a shipment of which is alleged to have been made to E. G. Henson, 1760 U street, northwest, Washington, D. C.

Notices of the action taken were served upon officials of each of the concerns and they will be given one week in which to appear in court and furnish bonds. Punishment provided in cases of this nature is \$200 fine for the first offense and \$500 fine or six months' imprisonment for subsequent offenses.

Besides being the first cases to be tried in Chicago, under the pure-food law, the cases are the first of a criminal nature to be begun in the federal courts by information instead of indictments in a number of years, according to the records of the district attorney's office, because the penalties prescribed are merely fines or jail sentences.

These cases may be regarded as preliminary. When they are finished the Government expect to bring a large number of cases of similar nature on which they already have the evidence.

NO DECISION ON BENZOATE OF SODA.

A report has been circulated widely over the country that President Roosevelt's Food Commission Board had passed adversely on the use of benzoate of soda in foods and that the report was sent to Dr. H. W. Wiley, the government chemist, at Washington, recommending some radical changes in the pure food laws. Embellishing the report are wholly imaginary accounts of the "persistent poisoning of men" to find out the effects of preservatives. It is not difficult to guess the origin of the report or the purpose for which it was circulated. We had little faith that it was even founded on fact, but wrote to the chairman of the commission to obtain the facts and received a reply as follows:

United States Department of Agriculture,
Office of Consulting Scientific Experts.
December 5, 1908.

Dear Sir:

In reply to your letter of the 3d inst. I have to say that the Referee Board has not come to any agreement as yet in regard to the use of benzoate of soda, or any other preservative, in foods. No report has been made to the Secretary of Agriculture and no one has been authorized to make any statement as to the results thus far obtained. Anyone professing to speak for this board is speaking entirely without authority.

Yours very truly,

IRA REMSEN.
Chairman, Referee Board Consulting Scientific Experts.

FOOT AND MOUTH DISEASE.

The *Eczema epizoota* epidemic, which for a time threatened the live stock interests of the country is now well under control, thanks to the activity of Secretary James Wilson of the U. S. Department of Agriculture. The states involved in the quarantine were New York, Pennsylvania and Michigan, New Jersey, Maryland and Delaware. Many states and the Dominion of Canada have prohibited the importation of cattle from the above states, but as the disease is now practically sniffed out, probably the quarantine will soon be lifted.

We omit our Directory of Food Control officials this month on account of lack of space.

NEW DAIRY AND FOOD COMMISSIONER FOR MINNESOTA.

Andrew French of Plainview, Wabasha county, Minnesota, will succeed E. K. Slater as state dairy and food commissioner of Minnesota. Mr. French's commission dates from Jan. 1, 1909.

Mr. French was born in Wisconsin and came to Minnesota in the spring of 1864. He was educated in the schools of Wabasha county, Minnesota, and taught school for nine years. He had held many minor offices in his county and in 1891 and 1893 was a member of the Minnesota legislature, where he took a prominent part in legislation in the interest of the farming community. He was a member of the State Board of Equalization in 1906, 1907 and 1908, and a candidate for member of Congress from the Thirteenth district against Hon. James A. Tawney in the recent election.

Mr. French married in 1885 and has a family consisting of two boys. He is a farmer and practical had a long line of energetic and useful dairy and food commissioners and we speak from personal knowledge that Mr. French will fully uphold the record of the North Star state in the conduct of the office.

A photograph of Mr. French received too late for insertion will be published in our January number.

BAUSCH & LOMB CO.'S NEW CATALOGUES.

The Bausch & Lomb Optical Co., of Rochester, N. Y., have just issued about the neatest and certainly the most complete catalogue of microscopes and microtomes ever published. No one interested in the optical advancement of the last decade, and particularly of the last year, should fail to send for these catalogues. We also acknowledge with thanks a little booklet on the "Use and Care of the Microtome." The microtome is one of the most expensive and intricate pieces of apparatus used in the chemical and biological laboratory, and the greatest knowledge and skill and care are required in its use.

The Bausch & Lomb Optical Co. will doubtless be pleased to send a copy to all interested. They have branches all over the world, the Chicago branch being located at 103 State street.

THE BLEACHED FLOUR DECISION.

The Bleached Flour hearing recently held in Washington, D. C., resulted in a ruling by Secretary Wilson which is published verbatim in another column. Messrs. Mitchel and Winton of the Government laboratory at St. Paul and Chicago and Commissioner Ladd of North Dakota were the principal witnesses against the practice of bleaching, while the millers, assisted by Dr. J. A. Wesener of the Columbus Laboratory, of Chicago, Prof. Haines of Chicago and Prof. Snyder of Minnesota, argued for the use of nitrogen peroxide in bleaching yellow flours.

MINNESOTA PRIZE WINNERS.

The highest scores in the educational contest for butter makers conducted by the Minnesota Dairy and Food Commissioner has lately been announced, the prizes being trips to New York, Chicago and Milwaukee, where the successful contestants could study the conditions of the butter market. Nels Olness of Sleepy Eye and Bernard Grunder of Murdock go to New York and J. L. Whakstrom of Harris and O. E. Taftner of Erskine to Chicago. W. W. McNuckings, Phelps, and J. T. McCarthy, West Concord, go to Milwaukee.

FOOD NOTES

The United States Department of Agriculture is installing a laboratory in Nashville, Tenn.

* * *

Germany produced 101,473,345 gallons of alcohol in 1907, most of which was from potatoes.

* * *

No decision has yet been reached in the Bleached Flour case lately concluded in North Dakota.

* * *

A new head of the St. Louis laboratory, U. S. Department of Agriculture, will be named December 20.

* * *

Olive oils to be introduced in the United States for manufacturing purposes free of duty must be actually inedible.

* * *

We acknowledge receipt of the annual report just issued of the Food and Dairy Department of South Dakota.

* * *

The importation into the United States of opium containing less than 9 per cent of morphine has been prohibited.

* * *

Anyway, Mr. Taft does not have to worry about who will be his Secretary of Agriculture.—*Editorial Washington Post, Dec. 10, 1908.*

* * *

Marrowfat has been exempted from taxation as a butter substitute on account of not being made in imitation of butter nor intended to be sold as butter.

* * *

A Cincinnati health inspector used red ink to denaturize condemned milk until he discovered the other day that the Greeks were buying it to make strawberry ice cream.

* * *

The United States Supreme Court, in the case of the North American Cold Storage Company, against the Chicago City Health Department, decided that the city under its police power had the power to destroy unwholesome food products.

* * *

Numerous peddlers in Iowa have been selling adulterated extracts and the latter part of November agents of Commissioner Wright caught some of them in Oskaloosa and the cases were set for trial on the 10th of December, the defendants being released on \$50 bonds.

* * *

Olive oil is going to be scarce and expensive. Italy reports less than one-fifth average crop, in many districts none at all. Spain, less than one-fourth average crop and Asia Minor and Greece far below the normal production. The weather, the fly and the olive worm are to blame.

* * *

Kalamazoo, Mich., has just passed an ordinance requiring meat dealers to pay a \$2.00 license. One man was arrested for refusing to pay the license and appealed the case to the Circuit Court. The city will insist on the license without regard to the litigation as to the validity of the ordinance.

Associated Press Telegram, Aug. 7.—The Bureau of Chemistry has found that the microscope may be used to excellent advantage in the examination of food and dairy products for the discovery of adulterants." And some have doubted that the Bureau of Chemistry would ever make any original and startling discovery.

* * *

In month of October, 1908, as compared with the same month in 1907, shipments from the United States of cattle on the hoof increased. Fresh beef and salted beef decreased, as did tallow. Bacon increased, while ham decreased slightly. Lard a little more than held its own. Shipments of oleo oil increased and imitation butter decreased. Butter and cheese show good gains.

* * *

The custom house at the port of New York, under instructions from the Treasury Department, has issued a new ruling whereby all questions involving the importation of drugs, food and liquors will be passed on by the joint action of the local representatives of the Treasury and Agriculture departments without referring to Washington, thus insuring speedy adjustment and prompt delivery.

* * *

Among the prominent food-control officials attending the convention and show of the National Dairy Association at Chicago, December 2 to 10, were Commissioner J. Q. Emery of Wisconsin, Commissioner H. R. Wright of Iowa, Commissioner R. W. Dunlap of Ohio, Commissioner E. K. Slater of Minnesota, and Hon. E. H. Webster, Chief of Dairy Division, United States Department of Agriculture.

NATIONAL RETAIL GROCERS' CONVENTION.

It has been definitely decided by the Portland, Ore., Retail Grocers' Association to hold the convention of the National Retail Grocers' Association June 2-5, inclusive, the fixing of the date having been left by the national association with the Portland association. This will bring the grocers to Portland during the week previous to Rose Festival week, and will give them an opportunity to remain over for the Rose Festival without too long an absence from their business.

The Portland association has taken preliminary steps toward the organization of a campaign to increase the sale of home manufactured products. The association met last week in the factory of Closset & Devers and witnessed the process of roasting coffee, grinding spices and manufacturing flavoring extracts. After the factory had been inspected by the 100 or more grocers present the visitors were served with an appetizing spread by the firm. From time to time during the next few months the retail grocers will make similar visits to all the plants in the city manufacturing grocers' products, the object being to become familiar with the character of goods turned out by Portland concerns, and in the end bring about an increase in the sale and consumption of home manufactured products. F. P. Shaughnessy, J. E. Malley and J. C. Mann were selected as a committee to visit Coos Bay and inspect the plant of the Coos Bay Condensing Company, whose output of condensed cream and milk is largely handled by Portland firms. This committee will also organize the grocers in the towns on Coos Bay, preparatory to their sending delegates to the state growers' convention January 4 and 5.—*The Modern Grocer.*

"REPORT OF INSPECTOR A. J. ANDERSON OF MINNESOTA ON INSPECTION OF CANNERIES".

St. Paul, October 15, 1908.

Hon. Edward K. Slater,
Dairy and Food Commissioner.

Dear Sir: In conformity with the provisions of Chapter 455, General Laws 1907, I have inspected the canning factories in operation this season in the state.

During the season of 1908, there were seventeen factories in operation, one of these built and operated for the first time this season; of the factories not operated last year three reopened this year, while one operated last season failed to open for this year's crop, making an increase in number of two factories in actual operation.

I submit herewith a statistical table, showing goods and amount packed this and former years; while the total output is not as yet large, it is an industry that has come to stay and will gradually expand in volume of business and to different localities in the state. The time will arrive when the farmer and producer will see the benefit and profit derived from a plant of this kind in successful operation in his near vicinity.

As inspector of the canneries, I have made it a point and used every endeavor to give managers and processors to understand that it is of the greatest importance and necessity that strict sanitation prevail in and around the factory, cleanliness observed by the help in all its apartments and in the preparation of and work in canning.

I am free to report that the vegetables now packed in this state are put up in accordance to law and under proper sanitary conditions; the quality of the goods packed this season are better and a uniformity not before attained which will enhance its value and insure ready and quick sale at good paying prices. While the pack is not as large this year the prices will continue to be high with a good demand, so on the whole, it has been a profitable season to the Minnesota packers.

Under a provision of law, local inspectors were appointed at some of the factories last season. I would recommend a discontinuance of this inspection as it has proven of no practical value, but in lieu of this, to permit the factories who desire the privilege, to allow them to have printed on the labels, a department certificate similar to, or to read as follows:

"Packed under regulations of and in factory inspected by Minnesota Dairy and Food Department."

This probably would have the tendency to do away with some prejudice that still remains with some consumers against the use of canned foods in general.

I may state that to my knowledge, that no kind of chemical preservatives, bleachers, fillers, nor any color or chemical sweetener are used in any factory; only cane sugar, salt and water are added to the goods when packed; this fact should be made known to the consuming public, and towards that end I recommend that this department issue a public bulletin on this business as conducted in this state.

Occasionally we hear it urged that on the label of canned goods, should appear the date or year when packed. This I recommend against. It is entirely unnecessary, as it is a well known fact that these goods do not deteriorate or change by age, being as good and wholesome many years after they are packed. It would only have a tendency to retard the sale and give

out the wrong impression that age had something to do with its quality, but I suggest that the cans be packed enclosing six cans in a paper carton, with four cartons in a case. This carton would keep the label looking fresh and clean and create a larger demand, as the retailer would naturally mark and offer the consumer these goods by the carton and would try to sell more by the dozen.

I also wish to state it is necessary that the proper information be disseminated by the Canners' Association, advertising their goods, as other food manufacturers are doing. It would create a larger demand for this class of the most convenient, cheap, unadulterated prepared foods.

I recommend the adoption of a standard on the staple products like corn, tomatoes and peas, either by a rule of this department, or be fixed by mutual agreement by the Minnesota Canners' Association, and with that in view, I submit as a basis for such "Minnesota Standards," definitions as follows:

STANDARDS FOR PEAS.

Fancy—Cans to be well filled; peas covered with clear liquor; size uniform; good flavor and absolutely tender.

Extra Standards—Cans to be well filled; peas covered with clear liquor; reasonably tender; size uniform and good appearance.

Standard—Cans to be fairly well filled; peas may be slightly hard; fair liquor; may be more or less cloudy, but not thick; size fairly uniform and to comply with national food law.

Grading as to Size—Petit pois or size No. 1, sieve, 18-64; extra sifted or size No. 2, sieve 20-65; sifted or size No. 3, sieve 22-64; June or size No. 4, sieve 24-64; marrow or size No. 5, 26-64.

STANDARDS FOR CORN.

Fancy—Cans to be well filled; must weigh not less than 23 ounces gross; stock absolutely young and tender and of natural color; packed medium moist and practically free from foreign substances, such as silk, cob or husk.

Standards—Cans to be well filled; must weigh not less than 23 ounces gross; stock reasonably tender and free from hard particles; natural color and to comply with national food laws.

STANDARDS FOR TOMATOES.

Fancy—Are to be packed from whole red ripe tomatoes and to weigh not less than 38 ounces gross and to contain 20 ounces of fruit, exclusive of juice.

Standards—Are to weigh not less than 36 ounces gross and must contain 18 ounces net weight of ripe tomatoes, not necessarily all red, exclusive of juice and to comply with national pure food laws.

All to be labeled to comply with our state and national pure food laws.

In connection with the packing of tomatoes, will state that some catsup was put up last year, as well as this season, which was and is prepared without the use of benzoate of soda or any other preservative, and it has been proven by these packers that this catsup did keep well without this preservative; it is necessary to use better raw material and not use the waste from the tomatoes.

I recommend the passage of a strict sanitary law applicable to all food and drink manufacturing plants, with inspection provisions as to the food and drinks placed on the market.

In conclusion will state that the Minnesota canners

having fully complied with all pure food laws and regulations in preparing their goods for the market, they with their industry are worthy of and entitled to the full support of the jobbers, dealers and the consuming public. Respectfully submitted,

AUG. J. ANDERSON,
Inspector.

BULLETIN NO. 30—ISSUED BY THE MINNESOTA STATE DAIRY AND FOOD COMMISSION.

St. Paul, Minn., November 18, 1908.

Minnesota is the only state in the Union that has a special law regulating canneries. It has been in operation two years, and has been of great benefit to this important industry, in addition to insuring the consumers of Minnesota canned goods, these products have been put up under the supervision of the state.

Certain sanitary conditions are required in each factory, and where the goods are canned under the supervision of an inspector of this department, the product may be labeled "Minnesota Standard, Inspected and Approved." The cost of such inspection is borne by the owner of the canning factory. Several local inspectors have been appointed under the provisions of this law, and a large percentage of the canned goods of the state is put up under such inspection.

In addition to the work done by the local inspector, one of the state inspectors has made regular trips to all canning factories, investigating general sanitary conditions and instructing owners and processors relative to the requirements of the law. The inspector in charge of this work has made a report of his findings to this department, and his report is a part of the biennial report which will be made to the legislature January 1, 1909.

The inspector reports that no artificial preservatives, bleachers, colors, or fillers of any kind are being used in the goods packed in this state. Water cane sugar and salt are the only ingredients added to the pure fruit or vegetables. I quote from his report as follows: "The quality of the goods packed this season is better than before, and of a uniformity not heretofore attained."

A good idea of the extent of the canning industry in this state may be gained from a study of the figures compiled by the inspector. 2,824,390 cans of corn, 531,960 cans of peas, and 430,760 cans of beans were packed this season; in all 4,408,190 cans of vegetables and fruit were packed in 1908.

With a better appreciation on the part of the consuming public of the purity of the products canned in the state will come a greater demand for them. This industry is destined to become one of the great business enterprises of our agricultural districts.

EDWARD K. SLATER, *Commissioner*.

CANNERS' CONVENTION.

The next annual convention of the National Canners' Association, representing various branches of the canning industry, will be held at Louisville, Ky., the week beginning February 1 and continue for six days. The headquarters will be in the First Regiment Armory, in which will be the machinery exhibit, in the main room. All allied exhibits will also be there instead of at the Hotel Seelbach, which will be the abiding place of the delegates. Already most of its accommodation has been reserved. The program has not been announced, but it is certain to be one of unusual

interest. The merchants and citizens of Louisville, Ky., are preparing an elaborate schedule of entertainment. There will be a smoker on Tuesday evening and the usual entertainment by the American Can Company.—The Modern Grocer.

DAIRY INDUSTRY IN SPAIN AND CANADA.

Consul-General Frank D. Hill, of Barcelona, furnishes the following report by the consular agent at Santander on dairying in northern Spain:

"The Cantabrian slopes are exceptionally well suited for dairy farming; the narrow coastal strip along the Bay of Biscay is cut off from the Castilian table-lands by a range of steep mountains, and the numerous valleys are watered by many springs swelled by frequent rainfalls, so that hay of a very good quality grows there with scarcely any cultivation, and may be had in large quantities.

"It is customary to cut the hay only once a year, in June or August, and then turn the cattle into the grounds to feed during the autumn and winter months. In summer time numerous droves of cattle, many of them coming from other districts, are guided up to the high ridges of the mountains as soon as the ground is free of snow and kept there for ten or twelve weeks; feeding there is abundant and very fine grasses grow spontaneously in the hollows of the rocks.

"Cattle is the staple of this district, sheep being few in number, as the moist climate is not suitable for raising them. No reliable statistics as to the number of animals or milk production are available, and the figures given by experts are only guesses and differ widely. Some show a production of 20,000,000 hectoliters (528,000,000 gallons) of milk, an amount very much exaggerated; perhaps one-fourth of this amount would be nearer the truth.

"The leading obstacle to the development of cattle raising in this district is the lack of capital. Few farmers own more than twenty or thirty cows, the majority of peasants possessing only one or two. Some people put money into the business, but do so on burdensome terms, for, as compensation for their loaning the money to pay for the cow, the peasant must tend and feed the animal, while the proceeds are to be equally divided.

DISPOSITION OF MILK.

"Milk forms generally the basis of food for the farmer and his family. Those living near towns take it in its natural state to market, and a very small proportion is left for making cheese and butter. The methods employed are quite primitive. Some creameries have been established in Asturias (a list of which is filed with the Bureau of Manufactures).

"Special kinds of cheese manufactured in this region, notably Cabrales, a kind similar to Rochefort, have a ready sale in Spain, such being equally the case with butter made in Asturias and Santander. Some parcels of these products (about 80 tons, valued at \$34,500) find their way to Cuba and Mexico annually. Milk is sold at about 0.2 peseta (\$.04) per liter (.908 quart) or 90 centimos (\$.16) per gallon; butter at 2.5 to 3 pesetas (\$.44 to \$.52) per kilo (2.2 pounds).

"Very few cream separators are in use in this district, those existing being of French and Belgian manufacture. It is not easy to place cream separators here, except in very small numbers. The best way to introduce them would be to send several illustrated catalogues, in Spanish, to firms in this district handling

such articles (list of which may be obtained from the Bureau of Manufactures). Machinery is usually sold at 90 days against bill of lading. There is no objection or prejudice against the sale and use of cream separators on farms."

Canada.

Consul Franklin D. Hale, of Charlottetown, supplies the following comparative statistics of the Canadian dairying industry:

	1900.	1907.
Butter and cheese factories...	3,576	3,516
Value of plants.....	\$6,164,649	\$8,126,505
Working capital	\$1,406,787	
Number of employes.....	6,886	6,352
Salaries and wages.....	\$1,464,110	\$1,719,978
Butter made, pounds.....	36,066,739	45,930,294
Value of butter.....	\$7,240,972	\$10,949,062
Cheese made, pounds.....	220,833,269	204,788,583
Value of cheese.....	\$22,221,430	\$23,597,639
Total butter and cheese, value.	\$29,462,402	\$34,546,701
Condensed milk and cream made, pounds		12,176,135
Condensed milk and cream, value	\$269,520	\$910,842
Total value of butter, cheese, condensed milk and cream..	\$29,731,922	\$35,457,543

The increase of butter in quantity was 27.35 per cent, and in value 51.21 per cent. The decrease of cheese in quantity was 7.83 per cent, while the increase in value was 6.19 per cent.

The decrease in number of factories and employes is accounted for by the fact of consolidation. The increased production would naturally imply a larger number of factories and employes. Climatic and feed conditions during the year 1907 prevented a more favorable showing in statistical comparison.

The average price of butter for 1900 was 20 cents per pound against 24 cents for 1907. The average price of cheese was comparatively 10 and 12 cents for the two periods.

The four condensed milk and cream factories in Canada in 1900 had increased to seven in 1907, one of which is located in Prince Edward Island. In 1907 these seven factories employed 234 persons at a cost for salaries and wages of \$91,897. They produced 10,334,485 pounds of milk and 1,841,650 pounds of cream; total value of the product was \$910,842, an increase of 238 per cent. In 1900 the importers of these articles into Canada from all countries amounted to 2,593,308 pounds, valued at \$254,176. In 1907 the corresponding figures were 71,647 pounds, valued at \$4,846. In 1905 (figures not given for 1900) the exports amounted to 3,444,837 pounds, valued at \$257,565, and the corresponding figures for 1907 are 689,539 pounds, valued at \$46,041. These figures show to what extent the home production is supplying the home market and the home market is consuming the home production.

In the maritime provinces butter production has increased in New Brunswick and declined in Nova Scotia and Prince Edward Island, as the following figures show:

Article.	New Brunswick.		Nova Scotia.		Prince Edward Island.	
	1900.	1907.	1900.	1907.	1900.	1907.
Butter—						
Pounds....	287,814	969,167	334,211	198,258	562,220	358,422
Value.....	\$58,589	\$231,102	\$68,686	\$49,047	\$118,402	\$89,339
Cheese—						
Pounds....	1,892,686	1,205,773	568,147	181,956	4,457,519	2,250,316
Value.....	\$187,106	\$146,720	\$58,321	\$22,066	\$449,400	\$251,410

In Prince Edward Island there were in 1900 47 butter and cheese factories, while in 1907 there were only 43. Of these, 8 made butter only, 20 made cheese only, and 15 made both butter and cheese. The total value of the plants was \$112,819; working capital, \$34,480; persons employed, 119; salaries and wages, \$25,002. Officials in the provincial department of agriculture think the figures for 1908 will be more favorable for the development of the dairy interest of the island.

SPECIALTY MANUFACTURERS COMPLETE ORGANIZATION.

The American Association of Specialty Manufacturers, which was formed in New York a few weeks ago, was further perfected in its organization and set into permanent activity at a meeting of the executive committee held this week at the rooms of the New York Association of Manufacturers' Representatives. All but two of the board were present.

The board furthered the organization by the choice of the following officers, the president to be chosen later:

First Vice President—Andrew Ross.

Second Vice President—Louis Runkel.

Third Vice President—A. J. Porter of the Shredded Wheat Company, Niagara Falls.

Secretary—J. T. Austin of New York.

Mr. Austin will be the general executive manager of the society and will open offices temporarily in the rooms of the Association of Manufacturers' Representatives, room 610, Powell building. Mr. Austin has been acting as secretary of the society since it was formed, a few weeks ago, and will now resign his present position as New York representative of the T. A. Snyder company to assume his new duties.

Since the former meeting, when twenty members were enrolled, there have been added to the membership about as many more, and others are in communication with the secretary regarding joining. It is proposed to confine the activities at first to recruiting members till the association is representative and has strength to carry out the plans which will then ensue. Meetings will be held in various of the larger cities in the efforts to recruit the members. The dues will be \$100 a year with \$50 as the initiation fee.—Modern Grocer.

SUGAR AS A DISINFECTANT.

Consul-General Richard Guenther writes from Frankfort that in many parts of Europe it is customary among the people to burn sugar in sick rooms, a practice which is considered by physicians as an innocent superstition, neither beneficial nor harmful. He adds:

"Professor Trilbert, of the Pasteur Institute at Paris, has, however, demonstrated recently that burning sugar develops formic acetylene-hydrogen, one of the most powerful antiseptic gases known. Five grams of sugar (77.16 grains) were burned under a glass bell holding 10 quarts. After the vapor had cooled bacilli of typhus, tuberculosis, cholera, smallpox, etc., were placed in the bell in open glass tubes and within half an hour all the microbes were dead.

"If sugar is burnt in a closed vessel containing putrefied meat or the contents of rotten eggs, the offensive odor disappears at once. The popular faith in the disinfecting qualities of burnt sugar appears, therefore, as well founded."

**ADDRESS TO THE NATIONAL MANUFACTURERS
OF SODA WATER FLAVORS IN CONVEN-
TION AT NEW YORK CITY NOVEM-
BER 20TH AND 21ST, 1908.**

By Thomas E. Lannen, Attorney at Law.

Gentlemen: The subject on which you would like to hear from me as your attorney is, no doubt, the status of food law legislation affecting your business, the important matters that have developed in the enforcement of those laws since your last convention a year ago, and the things you may expect to develop in food law matters during the coming year and which will directly or indirectly affect you.

At the outset I am very happy to say that owing to the thorough work done under the direction of your worthy president, Mr. Hutchinson, at the convention held in Washington, D. C., in November, 1906, and the good understanding had at that time with the government officials as to a proper construction of the national food law when applied to your products, the members of your association have experienced very little trouble of any kind under the enforcement of any of the food laws from that time to this. I am not aware of any member of the association having had to pay a fine anywhere. I believe the association has enjoyed a remarkable freedom from prosecutions or controversies with any of the food authorities. You are to be congratulated on this, and I trust your record will continue to be as good. There is no doubt but what it has been the result of a thorough grasp of requirements at the start and a willingness on the part of all the members to follow instructions without question.

THE COLOR QUESTION.

There have been, however, some things during the past year which have caused some annoyance to the members of your association, as well as to other food manufacturers, because of the uncertainty of the food laws with respect to them. One of these things is the use of coal tar colors.

So far as I am aware no member has yet had any trouble with the government on account of the use of any coal tar color, although I do not believe the members have been using certified colors. I do not believe the use of certified colors has yet become general, and in fact I do not know of any such colors being on the market.

On the best information I can obtain I believe I am warranted in saying that the government will not contest the use of any of the seven colors specified in F. I. D. 76 in an uncertified form; and I believe the position of the government with respect to other coal tar colors is that no prosecutions will be commenced against the use of any coal tar color unless such color is harmful.

SACCHARINE.

The position of the government towards the use of saccharine has not changed during the past year, and I understand that as far as the government is concerned the same may be used in soda water when its presence is clearly stated on the label and the purchaser can see that an artificial sweetener has been used. With respect to the states, however, the use of saccharine is prohibited in soda water in Alabama, Iowa, Louisiana, Minnesota, North Dakota, South Dakota, Utah, Wisconsin, Wyoming and Oklahoma. It is also prohibited in fruit syrups for soda fountains in Pennsylvania.

Its use is ruled against in Colorado, Idaho, Indiana, Kansas, Michigan and Washington, but the rulings do not have the force of law and I do not know of any cases having been brought to enforce such rulings.

The law in North Carolina prohibiting the use of saccharine in soda water has been repealed, and its use in soda water is not prohibited in that state.

Whenever saccharine is used in any of the states the fact should be stated on the label.

BENZOATE OF SODA.

Another thing that has come up from time to time during the past year has been the use of benzoate of soda in soda water and soda fountain supplies.

So far as the government is concerned the matter stands just as it did a year ago; the use of benzoate of soda will not be contested when its presence is plainly stated on the label.

In some of the states, though, there has been more or less trouble. For instance:

At a meeting held in St. Paul, Minnesota, on September 17 and 18, 1907, the food commissioners of the northwestern states adopted the following resolution, among others:

"Resolved, that the sale of soda fountain syrups and

crushed fruits containing any preservative other than sugar will be contested after December 1, 1908."

The states represented at this meeting were Minnesota, Illinois, Iowa, North Dakota, South Dakota and Wisconsin. Wyoming also adopted the resolution.

I understand, however, that the Wisconsin food commissioner has recently ruled that he will not molest the sale of any soda fountain syrups or crushed fruits containing benzoate until late in the fall of 1909.

Owing to the fact that a food standard commission has not been appointed in Illinois, as provided for in the last food law, no action will be taken on the resolution in Illinois for some time to come.

The latest information obtainable from Minnesota is that its use will be permitted for some time to come.

The latest information obtained from North Dakota is that the food commissioner proposes to enforce the resolution.

The latest information obtainable from South Dakota is that the food commissioner proposes to enforce the resolution.

The latest information obtainable from Wyoming is that the commissioner proposes to enforce the resolution.

The latest information from Iowa is that the use will be permitted.

I understand that the food commissioner of Michigan proposes to introduce a bill this winter to prohibit its use, but that it will be allowed in this year's pack.

The state of Idaho did not adopt the resolution, but for the past year or so has ruled positively that benzoate cannot be used in soda fountain fruits and syrups.

Its use is prohibited in North Carolina by law.

In all of the other states, so far as I am able to learn, benzoate may be used without challenge in amounts not to exceed one-tenth of 1 per cent when its presence is stated on the label.

Of course the resolution does not have the effect of law, and if the commissioners in any of the states named attempt to enforce the matter in court they may find it a difficult task, because it is far from a settled fact that the use of benzoate of soda is injurious to health.

There has been some recent agitation on the benzoate question in Indiana, but I understand that it will be allowed in this year's pack.

The type used in stating the presence of benzoate of soda or saccharine should, wherever possible, be eight point brevier caps or larger.

The referee board appointed by the government to investigate the harmfulness or harmlessness of benzoate of soda in food products and the advisability of permitting its use is still at work on the subject and has not yet made a finding and report.

I am not in a position to say what the recommendation will be, or when it will be made, but the general impression is that the use of benzoate will be regulated but not absolutely barred. However, no one is in a position to even venture a guess on the subject. It is likely to be some months before the board will report on any of the subjects referred to it, and possibly not before next spring or summer.

COAL TAR COLORS IN THE STATES.

The use of coal tar color is prohibited by law in Alabama, Minnesota, North Dakota, South Dakota and Wyoming, and in fruit syrups for soda fountain use in Pennsylvania.

Its use is also forbidden by a ruling of the food commissioner in Idaho and Washington, but I do not consider that these rulings have the force of law.

The food law of North Carolina prohibits the use of coal tar color, but the food department of that state will not interfere with the use of any of the seven colors allowed by the government.

The present law of Louisiana limits the use of coal tar colors to the seven permitted by the government, but a new set of regulations are being drafted and it is not known what they will contain. It is likely, however, that this regulation will stand as it is.

In other states the use of coal tar color is not being contested, but my advice to you is to use the seven permitted colors everywhere whenever possible in all states permitting coal tar colors.

THE USE OF VEGETABLE COLORS.

The use of harmless vegetable colors is permitted everywhere, but even the use of these colors is regulated in some of the states. In North Dakota and Wyoming the name of the vegetable color used should be stated on the label.

There is a general tendency to compel the presence of any color to be stated on the label, and in some places a desire to prohibit the use of any color, even in soda water.

MINERAL WATERS.

At the request of your president I submitted a brief on the subject of mineral waters to the Board of Food and Drug Inspection to be considered at a hearing accorded bottlers in Washington on the 17th of December, 1907. In that brief I submitted the following questions:

"First: What is an 'artificial mineral water'?"

"Second: What must be the nature of a water labeled 'Artificial Vichy Water' to have it pass as legal when so labeled?"

"Third: What must be the nature of a water labeled 'Imitation Vichy Water' to have it pass as legal when so labeled?"

"Fourth: Is it proper to use such names as 'Congress Springs,' 'Carlsbad,' 'Vichy,' etc., on mineral waters that do not come from Congress springs, or from the Carlsbad springs, or from the Vichy springs, and, if so, under what circumstances and under what labels?"

"Fifth: If such names as above are permitted, on what kinds of waters will they be permitted?"

"Sixth: Is it proper to use a geographical name on a mineral water that does not come from the place indicated by the name, and under what circumstances?"

"Seventh: Is it proper to use such names as 'Deep Rock,' 'Cold Rock,' etc., on mineral waters that are produced from ordinary water by the addition of minerals, and, if so, under what circumstances?"

"Eighth: What is it proper to sell as a 'mineral water' without any other label or explanation?"

"Ninth: What is a proper label for a water that is nothing more than ordinary well water to which mineral salts have been added?"

"Tenth: Is it proper to use pictures of springs, rocks, fountains, mountain scenes, etc., on manufactured mineral water?"

"Eleventh: If a water is permitted to be sold as an 'imitation Congress springs water' or as an 'artificial Congress springs water,' is it proper to use a picture of the genuine Congress springs on the label of such a product?"

"Twelfth: Will the name 'Vichy' be deemed a geographical name or will it be held to be the name of a class or style of water?"

"Thirteenth: Will the name 'Seltzer' be held to be the name of a style of water, or otherwise?"

"Fourteenth: Is it proper to use such a description as 'The King of Waters' on any mineral water, and, if so, on what waters or water?"

On May 13, 1908, the board made a decision on the subject (F. I. D. 94) as follows:

"The department has received many letters from various water manufacturers and mineral water dealers asking which waters it will be necessary to label as 'artificial' or 'imitation.' It is thought that all manufactured waters should be labeled as either artificial or imitation, the choice of words being left to the manufacturer, and applying to the waters contrived by human art and not made in imitation of a natural water, as well as to those so contrived and made in imitation of a natural water. A water which is designated by some name alone, without any characterizing adjective to tell whether it is natural, imitation, or artificial, will be considered a natural water. It is suggested that the words 'artificial' or 'imitation' be in as large type as the name of the water in question, and on a uniform background.

"All waters which, though natural in the beginning, have anything added to them or abstracted from them after they come from source should either be labeled as 'artificial' or should be so labeled as to indicate that certain constituents have been added to or extracted from them. It is suggested that the word 'artificial' or the above explanation, as the case may be, should appear in as large type as the name of the water in question and on a uniform background.

"The following examples are explanatory of the above principles: If lithia be added to a natural water, the water should either be labeled as 'artificial lithia water,' as 'water artificially lithiated,' or as 'water treated with lithia.' Again, if carbon dioxide be added to a natural water, whether the carbon dioxide be of the manufactured variety or collected from the spring itself, the water should either be labeled as 'artificially carbonated water,' 'water artificially carbonated,' 'water treated with carbon dioxide,' or 'contains added carbon dioxide.'

"No water should be labeled as a natural water unless it be in the same condition as at source, without additions or abstractions of any substance or substances.

"No water should be labeled as 'medicinal water' unless it contains one or more constituents in sufficient amounts to have a therapeutic effect from these constituents when a reasonable amount of the water is consumed. No water should be named after a single constituent unless it contains such constituent in sufficient amounts to have a therapeutic effect when a reasonable amount of the water is consumed.

"No manufactured water should bear upon the label any design or device that would lead the consumer to believe that the water is a natural one. Among such designs may be mentioned pictures of springs, fountains, woodland streams, etc.

"No water should be characterized by a geographical name which gives a false or misleading idea in regard to the composition of said water. For example, it would not be correct to designate a water as 'lithia water' merely because the water came from Lithia, Fla., or Lithia, Mass.

"Manufactured water may be named after a natural water in case the words 'imitation' or 'artificial' are used, but such manufactured waters must clearly resemble in chemical composition the natural waters after which they are named.

"In accordance with Regulation 19 (c) and (d), no natural American spring water should be named after a foreign spring, unless the name of the foreign spring has become generic and indicative of the character of the water, except to indicate a type or style, and then only when so qualified that it could not be offered for sale under the name of the foreign spring. In these cases, the State or Territory where the spring is situated should be stated on the principal label.

"Inasmuch as mineral waters are largely purchased because of their supposed freedom from contamination, any showing of such contamination will be considered as adulterated and therefore in violation of the Food and Drugs Act."

LABELS.

There has been more or less of a controversy in some of the states, particularly in Colorado, about stating the presence of color. That commissioner and some of the other western commissioners, particularly Kansas, and I believe California, hold the theory that whenever an artificial color is used that fact should be stated on the label. These commissioners refuse to agree with the bottlers in the theory that added color is a part of the formula for ginger ale, root beer, etc., and the point keeps coming up from time to time. The matter should be considered by your association and a decision reached as to whether it is worth while to contest this point with the commissioners, or whether it is better to concede it and state the presence of added color whenever used. If you agree to state color whenever used and all the members do it, it will settle this little petty trouble.

Another point that has caused more or less trouble is that the Colorado commissioner and some others hold that sarsaparilla and root beer should be labeled as artificial, because the root beer is not made from roots and the sarsaparilla is not made from sarsaparilla root. This matter should be considered by your association and a decision reached as to whether you want to concede the point or not.

My views in the foregoing matters are that it will be easier and perhaps better to concede the points than to litigate about them. I do not think a compliance with these demands the commissioners make will affect your business harmfully in the slightest degree.

FOAM.

The question of the use of foam made from soap bark being legal has also come up. A report was recently circulated that the government was about to prohibit its use and also that its use would be prohibited in Illinois. Both of these reports, however, were untrue. The government officials have not taken any stand in the matter and it stands just as it did two years ago when your president took up the subject with the government at your Washington convention. So far as Illinois is concerned the matter will not be considered for some time to come.

There is, however, some agitation on the subject, and it would be well for your association to give the subject some attention and be prepared to meet the issue when it arises.

INTERNAL REVENUE.

The case of the Liquid Carbonic Company against E. B. Allen, Internal Revenue Collector at St. Louis, has been tried during the past year and decided in favor of the Liquid Carbonic Company. The case was tried in St. Louis on the 19th and 20th of December, 1907.

The question in the case was whether or not the Liquid Carbonic Company was liable for an internal revenue tax

as rectifiers because it manufactured extracts for soda water use which contained from 30 to 50 per cent of alcohol. The internal revenue department claimed that the company should pay a tax and compelled it to pay \$366.28 of a tax. The Liquid Carbonic Company sued the internal revenue collector for this money, claiming that the extracts made by it were not intoxicating liquors within the meaning of the internal revenue laws.

The company, besides making all of the ordinary soda fountain flavors, also manufactured flavors which were used in saloons, such as Angostura, Benedictine, etc.

The evidence showed that nothing made by the company was used for other purpose than for the purpose of imparting a flavor, the ordinary flavors being used exclusively in the flavoring of soda water and the Angostura, Benedictine and other flavors used on bars were used simply for the purpose of imparting a flavor to mixed drinks.

The court held that the company was not liable to tax and that it did not make any difference how much alcohol the extracts contained so long as they were not used as beverages themselves, but were used solely for the purpose of imparting a flavor to the other drinks.

The company got a judgment against the collector for the full amount of the tax paid and the costs of the case.

The government appealed to the United States Circuit Court of Appeals at St. Louis and the case is coming up in the Court of Appeals on the 8th of January, next. I am confident that we will win the case.

Some of the internal revenue officials seem to be of the opinion that simply because a product contains a considerable amount of alcohol and might be used as an intoxicating beverage that for that reason it is subject to a tax. But the law is that the use to which a product is put must be considered in determining whether or not it is subject to a tax.

The government has also taken the stand that manufacturers who recover alcohol in the manufacture of foam are subject to a tax. I do not agree with the government in the stand the officials take, but no test case has been made as yet that I am aware of. I know of one case where a tax was collected, but the amount involved was so small that it was not worth fighting to recover.

LEGISLATION.

There has not been much legislation during the past year that would affect your industry, owing to the fact that only about eleven legislatures were in session. Some bills came up, however, that required attention and that were handled successfully. One bill in particular was in the state of Georgia. It sought to prohibit the use of coal tar color. This bill was reported to your president and I was informed shortly after that the bill had been defeated.

Beginning with next January and from then on until June there will be 42 legislatures in session. They are as follows:

Ohio, January 4, no limit.
Idaho, January 4, 60 days.
California, January 4, 60 days.
Minnesota, January 4, 90 days.
Montana, January 4, 60 days.
Tennessee, January 4, 75 days.
Nebraska, January 5, 60 days.
Delaware, January 5, no limit.
Pennsylvania, January 5, no limit.
North Dakota, January 5, 60 days.
South Dakota, January 5, 60 days.
Rhode Island, January 5, 60 days.
Colorado, January 6, 90 days.
Maine, January 6, no limit.
Massachusetts, January 6, no limit.
Michigan, January 6, no limit.
New Hampshire, January 6, no limit.
New York, January 6, no limit.
North Carolina, January 6, 60 days.
Missouri, January 6, 70 days.
Iowa, January 11, 60 days.
Arkansas, January 11, 60 days.
Indiana, January 11, 60 days.
Oregon, January 11, 40 days.
South Carolina, January 11, no limit.
Utah, January 11, no limit.
Washington, January 11, 60 days.
Alabama, January 12, 50 days.
Kansas, January 12, 50 days.
New Jersey, January 12, no limit.
Oklahoma, January 12, 60 days.
Texas, January 12, 90 days.

Wyoming, January 13, 40 days.
Connecticut, January 13, no limit.
Illinois, January 13, no limit.
West Virginia, January 13, 45 days.
Wisconsin, January 13, no limit.
Nevada, January 18, 60 days.
New Mexico, January 18, 60 days.
Arizona, January 20, 60 days.
Florida, April 6, 50 days.
Georgia, June 24, 60 days.
Vermont now in session.

States not in session in 1909: Maryland, Virginia, Louisiana, Mississippi, Kentucky.

I have no doubt but what there will be a flood of legislation offered and no doubt a great deal of it will affect your industry.

Some of the things that will undoubtedly be considered by the legislatures will be the use of coal tar colors, the use of saccharin and the stating of formulas on labels, also the use of preservatives.

I believe a strong attempt will be made in a great many of the state to prohibit the use of coal tar color and saccharin and possibly all chemical preservatives.

I also believe a strong effort will be made to compel manufacturers to state formulas upon labels.

The food commissioners have appointed a committee to draft a uniform law to be introduced in all of the legislatures. I understand this law has already been prepared, but it is not ready for publication.

Nobody seems to know what the nature of the law will be, but inasmuch as some radical food commissioners have, I believe, had a large part in the drafting of this law, and they are opposed to the use of coal tar colors and saccharin and are considered quite radical in their ideas on food law matters, it is quite natural to suppose that this law will be aimed at coal tar colors, saccharin, all chemical preservatives and in addition it may attempt to compel the stating of formulas on labels. I may not be justified in predicting so much about this proposed law, but since some of the commissioners back of it are very radical in their ideas on food subjects it is but natural to look for a radical law.

I would recommend to your association that you take some means to keep in touch with all legislative matters this coming winter and that the President appoint a legislative committee in each state to look after such matters, as other associations are doing, and to cooperate with other associations in legislative matters and protect your own interests. If you do not do this I believe you will find radical legislation affecting your business by the time the legislatures adjourn next spring.

OPERATION OF THE NATIONAL LAW.

Under the operation of the National Food Law I believe your members have enjoyed freedom from trouble of any kind, at least I have not learned of any as your attorney.

The government's hand is growing stronger every day in the enforcement of the National Law and I cannot recommend to you too strongly the advisability of complying with it and keeping out of trouble with the government.

About the only objectionable feature that I have come in contact with as yet in connection with the enforcement of the National Law is the manner in which the government seeks to enforce the law. Briefly stated that manner is as follows:

They will seize a car load of goods claimed to be adulterated or misbranded and hold the same until the case can be tried in court. There is no way by which a manufacturer can get his goods away from the government without some action on the part of the court. It would not be so bad if the manufacturer's goods were tied up only until the court could act in the matter, but if a manufacturer defends the case and the judge decides against him there seems no way by which he can get his goods and still appeal the case. If the lower court decides against him he can usually pay the costs, give a bond conditioned that he will label the goods as the government requires and not sell them contrary to the law as construed by the court, and when he does so he can get his goods. But when he does this he has no right to appeal, because there is nothing to appeal for, as the costs have been paid and he has his goods. If he wants to appeal he must leave his goods in the hands of the marshal until his case is disposed of on appeal, which may be a year or two. As shipments seized are usually worth a thousand dollars or several thousand dollars there is no manufacturer who desires to have his goods tied up for one or two years. The law should be amended so that a manufacturer could take his goods out on bond when

he labels them legally under the finding of the lower court, and then appeal without paying the costs. In this way the costs of the case would not have to be paid by the manufacturer if he should win the case on appeal. And besides this, the principle involved in the case could be settled on appeal without the manufacturer being denied the use of his goods for a year or two. I may be wrong in making this statement, about the hardship a manufacturer must endure before he can appeal a case where the government has seized his goods, but I am only relating what experience I have had in the matter. There may be a way to appeal from a decision of the lower court and get possession of the goods at the same time, but I have not been able to find any way as yet. It seems to me this part of the law should be amended so as to give manufacturers the same rights with respect to their goods that they would have if they were arrested themselves. Under the law if a man is arrested for almost any crime except murder he can give bail and enjoy his freedom until his case is finally disposed of, but under the National Food Law as it is now being enforced, if a manufacturer's goods are seized and the lower court finds they are illegal he must forfeit all interest in the goods until the case is disposed of by the last court of appeal and there is no way by which he can get his goods out and at the same time enjoy the right of appeal.

I am only pointing this matter out to your association so that if the subject should be agitated in the future you will be familiar with it.

CONDITIONS IN GENERAL.

The general condition of the Country, so far as food laws are concerned, is much better for all concerned than ever before.

The great agitation on the subject for the past two or three years has had the effect of compelling all manufacturers to label alike, while on the other hands the commissioners have learned that their powers are limited. The issues, too, have been sharply defined and more generally understood.

I believe the next year or two will see most of the vexatious problems that have caused so much trouble in the past definitely settled and that a nearly uniform condition of affairs will prevail.

THOMAS E. LANNEN.

FATS AND OILS DEFINED.

Few customers and a considerable number of handlers know but little of what the different oils and fats in ordinary use are made from. The following definitions will be of interest to those who have not given the matter thought:

Oleo oil is the oil pressed out of the choicest fats in the beef, after having been rendered.

Oleo stearine is rendered beef fat from which the oil has been pressed.

Lard stearine is the solid portion of prime steam lard from which the oil has been pressed.

Extra winter strained lard oil is pressed from choice prime steam lard.

Extra lard oil is pressed from steam lard of an inferior quality, and is used in the manufacture of lubricants.

No. 1 lard oil is pressed from choice yellow hog grease, and is used in keeping dies cool.

Acidless tallow oil is pressed from choice edible tallow, and has an acid test of less than 1 per cent.

Neatsfoot oil is made from cattle feet, and generally repressed into cold test oil.

Cold test oil is pure neatsfoot oil pressed so that it will remain in a temperature of 30 degrees Fahrenheit for twenty-four hours without showing signs of freezing.

Compound lard is made from cottonseed oil and oleo stearine.

Prime steam lard is the fat parts of the hog reduced in tanks by the direct application of steam.—The Trade Journal.

THE LABELING OF WHISKY COMPOUNDS.

The labeling of whisky compounds, under the Food and Drugs Act of June 30, 1906, will be governed by the opinion of the Attorney-General, dated December 1, 1908, published herewith.

JAMES WILSON,
(Signed) Secretary of Agriculture.
Washington, D. C., December 4, 1908.

December 1, 1908.

The honorable the Secretary of Agriculture.

Sir: I am duly in receipt of your letter of this date. In this you call my attention to a passage in my opinion of April 10, 1907, addressed to the President, which passage is in the words following:

"I conclude that a combination of whisky with ethyl alcohol, supposing, of course, that there is enough whisky in it to make it a *real* compound and not a mere semblance of one, may be fairly called 'Whisky,' provided the name is accompanied by the word 'Compound' or 'Compounded,' and provided a statement of the presence of another spirit is included in substance in the title"—

and you ask me how much whisky there must be in a mixture of whisky and neutral spirits to fairly entitle this mixture to be called a "Compound" or "Compounded" whisky, or, as stated in your letter, "whisky: a compound of pure grain distillates."

In the passage in question I stated that there must be, in any such a mixture, "enough whisky * * * to make it a *real* compound and not a mere semblance of one." In the absence of any legislative provision or judicial determination on this subject, the proportion of whisky necessary for the purpose in question can be stated only tentatively and for the time being; and a selection of any particular fraction of the whole as a necessary proportion must be, at least in appearance, somewhat arbitrary. I have, however, very carefully examined the evidence on this subject submitted by your department, and, after full consideration of such evidence, have reached the conclusion that, until better informed in the premises from the action of the Congress or of the courts, this department will not advise a prosecution on the ground of violation of law in using any one of the three labels above suggested or any substantial equivalent therefor when the amount of whisky in the mixture equals or exceeds one-third in volume of the spirituous content; that is to say, in the case you mention, one-third of the whisky and neutral spirits combined. Very respectfully,

CHARLES J. BONAPARTE,
Attorney-General.

PRIZE OFFERED FOR A DEVICE FOR DRYING HOPS.

Consul-General Richard Guenther reports that the Didaskalia of Frankfort contains the following article:

"The English Royal Agricultural Society has offered a prize of \$500 for the best device for drying hops. Competitors may transmit offers up to January 1, 1909, to the secretary of the society, 16 Bedford square, London, W. C., and must make a deposit of \$25. This amount will be at once returned if the device is not admitted to competition. The machines admitted must be placed for use by August 1, 1909, and will be tested during the next season of drying hops. The jury must be enabled to make a thorough examination during the drying as well as before. All further information with reference to the details of the offer will be readily given by the secretary."

United States Department of Agriculture,

OFFICE OF THE SECRETARY,
BOARD OF FOOD AND DRUG INSPECTION.

NOTICE OF JUDGMENT NO. 25, FOOD AND DRUGS ACT.

MISBRANDING OF A DRUG.

(Harper's Cuforhedake Brane Fude or Cuforhedake Brain Food.)

In accordance with the provisions of section 4 of the Food and Drugs Act of June 30, 1906, and of regulation 6 of the rules and regulations for the enforcement of the act, notice is given of the judgment of the court, as hereinafter set forth, in the case of the United States against Robert N. Harper for violation of sections 1 and 2 of the aforesaid act, lately pending in the Police Court of the District of Columbia.

On August 27, 1907, an inspector of the Department of Agriculture purchased from a firm of retail druggists in Washington, D. C., samples of a preparation contained in bottles encased in cartons, upon the principal side of each of which was printed the following:

HARPER'S CUFORHEDAKE BRANE-FUDE.

Read inner circular.

Guaranteed under the Food and Drug Act,
June 30, 1906. No. 6707.

Each Oz. contains 30% alcohol and 16 grs.
acetanilid.

A positive relief for Headache, Neuralgia,
Nervousness, Insomnia, &c.

It is taken in doses of two teaspoonfuls in a little water and repeated in 20 or 30 minutes if not relieved, and again in 30 minutes after the second dose, if that should not give the desired effect.

For insomnia, two teaspoonfuls at bed time; for nervousness, two teaspoonfuls every 2 or 3 hours.

Price, 25 Cents.

Manufactured by
ROBERT N. HARPER,
Laboratory and Office,
467 C Street N. W.,
Washington, D. C.

The bottles were similarly labeled and the words "Harper's Cuforhedake Brain Food, Washington, D. C., were blown in the glass. A folded circular inclosed with each bottle contained, among other things, the following statements:

"A most wonderful, certain and harmless relief," and "The rapidity by which it cures and the after effects being pleasant and without any depression whatever, containing no morphine or poisonous ingredients of any kind, is, I think, sufficient guarantee of its superior qualities."

The preparation was duly analyzed in the Bureau of Chemistry of the Department of Agriculture, and it was found that it consisted of the following ingredients:

Alcohol (per cent by volume).....	24.2
Acetanilid (grains per ounce).....	15.0
Caffein (per cent).....	1.5
Antipyrin (per cent).....	1.0
Potassium, sodium, and bromids also present.	

After comparison of this analysis with the aforesaid labels and statements, the Secretary of Agriculture was of the opinion that the preparation was misbranded within the meaning of section 8 of the Food and Drugs Act of June 30, 1906. Accordingly, on October 17, 1907, in pursuance of the provisions of section 4 of the act, he afforded the dealers from whom the samples were purchased a hearing at the Bureau of Chemistry of the Department. The manufacturer and vendor of the preparation, Robert N. Harper, also appeared and participated in the hearing. As no evidence was produced tending to show fault or error in the aforesaid analysis, the Secretary reported the facts to the Attorney-General. The facts were duly referred to the United States Attorney for the District of Columbia, who, on January 14, 1908, filed an information in the Police Court of the District of Columbia against Robert N. Harper, alleging the manufacture and sale by him in the District of Columbia of a misbranded drug, contained in bottles and cartons and accompanied by circulars upon and in which were blown and printed certain false

and misleading statements regarding it, that is to say, That the said drug was a "Cuforhedake Brane-Fude" or "Cuforhedake Brain Food;" that said drug contained no poisonous interesting and important case. As was stated by Mr. Baker, lief; and that each ounce thereof contained 30 per cent of alcohol.

The defendant having entered a plea of not guilty, the case was duly submitted to a jury upon testimony, argument of counsel, and the following instructions of the court:

Ivory G. Kimball, judge.

Gentlemen of the jury: I want to congratulate you upon your arrival at the last stage of this very long, but very interesting and important case. As was stated by Mr. Baker, the United States District Attorney, it is the first case under the Pure Food Law in any court in the country, and it is one that may, in its final results, test many questions that are raised by the law and necessary to its proper administration, which questions must be finally settled by the courts.

The act known as the Pure Food Law was passed on the 30th of June, 1906, but did not go into effect, as far as this case is concerned, until the 1st of January, 1907, thus giving to manufacturers a chance of changing their labels and packages, if they found it necessary to do so, and giving opportunity to dealers to get rid of any drug that might come under the purview of the law. So that in this case, as you have noticed in the prayers, the date is given to you as from January 1, 1907, up to the date of the filing of this information.

The information as originally filed had four counts, but the Government has abandoned the second and third; and, therefore, in your deliberations you will take no account of the second and third counts, but will confine yourselves to the first and fourth.

The first count relates to the manufacture of a misbranded drug; the fourth count relates to the sale of such a misbranded drug.

There was no law on this subject before the passage of this act. So that up to the 1st day of January, 1907, this drug might have been legally branded as the Government claims it was branded after that date; but from the 1st day of January, 1907, the law of June 30, 1906, went into effect, and is effective upon all manufacturers coming within its purview.

The first section of this information charges that the defendant, Robert N. Harper, manufactured a drug which was misbranded; and to fully inform you as to what is meant by the law by "misbranded," I will state what the law requires, because the law uses the word "misbranding" and then defines it, and the court and jury are bound by the definition of misbranding as laid down in the law. The term applies to all drugs or articles of food, or articles which enter into the composition of food, "the package or label of which shall bear any statement, design, or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular."

You will notice how broad the law is in its definition. If it is found from the evidence that in any particular this drug known as "Harper's Cuforhedake" misstates or states falsely, then the law has been violated. It is not necessary that each one and all of them have been broken, but the law says "in any particular." So that if you find from the evidence that in any one point there has been a misbranding under the definition which I have read to you then you shall find a verdict of guilty.

I might say here that there are several items in this first count which, before entering upon the trial, Mr. Baker, on behalf of the government, abandoned. So, in considering this, you will only take into account the items that I shall name, they being the only items on account of which Mr. Baker says the law was violated.

The first claim that he made is that said drug was not a cure for headache, nor a food for the brain, and I want to read in that connection, because the words "cure" and "brain food" have been referred to by each one of the counsel who has appeared before you, the prayer that I have granted as to the meaning of those words:

"The jury are instructed that in determining the meaning of the words 'brain food,' 'cure,' 'poisonous,' and 'harmless' the definition of which has been called into question by this inquiry, they are to give such words their ordinary and customary meaning as understood by the general public and not a technical meaning as given by any expert witness."

This law was passed not to protect experts especially, not to protect scientific men who know the meaning and the value of drugs, but for the purpose of protecting ordinary citizens, like the jury and like counsel and others, who have learned

during the hearing of this trial a great deal more about these things than they ever knew before in all their life.

In determining the meaning of the words used upon these cartons, bottles, and circulars, they are to be taken in the way that an ordinary, plain, common citizen, without scientific knowledge, would understand them if they were put before him.

And so with regard to this "Cuforhedake," you can take it to mean what an ordinary man would take it to mean—the meaning which it conveys to an ordinary person when he gets a remedy said to be a cure for headache. The first prayer as presented to me on the part of the government touches that subject. I do not know that it is necessary for me to read it to you again. It has been read three times. If that word, spelled in the two different ways that it is spelled, would convey to the ordinary citizen the idea that it was a food for the brain as contradistinguished from the idea of a food for the whole body, then it is—and I so charge you in this first prayer—misleading, and therefore a violation of the law; and if you find that such a definition is what the ordinary citizen would apply to it, then you, under that first prayer, would be compelled to bring in a verdict of guilty, and you have the right, in considering that question, to take it in the connection in which it is placed. You have the right to consider that it is on a medicine which it is claimed is a cure for headache, an ache which is supposed by most citizens to be from the brain, and the words brain food spelled in the two different ways you have had demonstrated to you so many times are used in connection with a cure which is said to cure the headache—an ache that is seated in the head. You have a right to consider all that. How would an ordinary citizen, in taking that up and seeing these words, understand it? What would he understand by the use of those words?

I have granted some other prayers where the subject of brain food is referred to.

Mr. Baker: If your honor please, when you read the other ones, will you spell out the words?

The Court: The jury are further instructed that if they find from the evidence that the use by the defendant of the name "brancfude" as a part of the name of the defendant's preparation was not reasonably or fairly calculated to deceive or lead to the belief that the preparation was a food for the brain, then they shall find that the use by the defendant of the word "brancfude" was not false or misleading. That is the question that I suggested to you a moment ago. How would the ordinary citizen, upon reading that, understand it? If it would mislead him or have a tendency to mislead him, then the case is made out. If there is nothing in the term in the way in which it is used that would mislead an ordinary citizen, then, of course, that, under the prayers that I have granted, is to be taken into consideration by you.

Mr. Baker: Would your honor read that first prayer now?

The Court: I will read, at the request of counsel, the first prayer:

"If the jury find from the evidence beyond a reasonable doubt (and you gentlemen are old jurors and understand perfectly well what is meant by a reasonable doubt; I need not again charge you on that point, because you have had the charge over and over again; the doubt must be a reasonable one—one that a reasonable man would entertain from the evidence) that the defendant, Robert N. Harper, on the 5th day of August, 1907, or at any time between the 1st day of January, 1907, and the date of the filing of this information, in the District of Columbia, did manufacture a certain liquid medicine or preparation, styled and designated 'Harper's Cuforhedake Brain Food,' or 'Harper's Cuforhedake Brane Fude,' and did place on the bottle, box, or circular thereof the following statements, designs, and devices, or any of them, viz.: 'Cuforhedake Brain Food,' or 'Cuforhedake Brane Fude,' unless you further find from the evidence that there is a known and distinct kind of food that feeds and nourishes the brain as distinguished from a food that feeds and nourishes the whole body, and that the said drug or preparation is a food, and that it feeds and nourishes the brain particularly, as distinguished from a food that nourishes all parts of the body, then the jury are instructed as a matter of law that the words 'brain food' and 'brane fude'—if you find that 'brane fude' means brain food—are false and misleading, and your verdict shall be guilty on the first count of the information; and if the jury further find that the defendant did sell or offer for sale to the said Stone & Poole, on the date or within the time mentioned and in the District of Columbia, the said drug in this prayer described, they shall find the defendant guilty on the fourth count of the information."

The next objection that is made in this information is "nor did said drug contain any poisonous ingredients of any kinds."

Gentlemen, the question raised is not whether it is a poison in the doses prescribed in the preparation. That is not the question before you as jurors. You have nothing to do with the question of whether it is poisonous in the doses prescribed or in larger doses. The sole question raised here for you to consider is whether the said drug contains poisonous ingredients of any kind. If you find from the evidence, beyond a reasonable doubt, that it did contain poisonous ingredients, whether taken in the doses named, whether they would or would not be harmful—if you find that the drug contained a poisonous ingredient—then your verdict must be guilty, because that is the plain issue. Of course, that you must find beyond a reasonable doubt.

The next point is: "Nor was said drug a harmless relief." I do not need to say anything in particular upon that point. That has been fully argued by counsel, and I can not go into the evidence. It is a question for you. Of course, if you find, beyond a reasonable doubt, any one of these points against the defendant, then your verdict must be guilty, whatever you may do with the others, because the law provides "in any particular." Now I will say nothing further with regard to the "harmless relief" than to refer you to the evidence, which is in your own minds. I can not tell you what the evidence is. You have the right to carefully consider it, and it is your duty to carefully consider all the evidence bearing upon the point, and to determine beyond a reasonable doubt whether, in your judgment as jurors, the case has been made out by the government beyond that reasonable doubt. If it has been made out that it is a harmful relief and not a harmless one, then of course your verdict must be guilty. If you do not so find upon that point, your verdict would be in favor of the defendant upon that point.

The next one is: "Nor did each ounce of said drug contain 30 per cent of alcohol." I do not think I need to say anything upon that point. The evidence you know. You know the evidence of the two who analyzed it, and you know what they said. I will merely read the prayer that was granted on that subject:

"If the jury shall find from the evidence that the defendant's preparation in question contained 30 per cent of alcohol at the time of the manufacture and sale thereof, then they should find that he did not make a false or misleading statement as to the quantity or proportion of alcohol contained therein."

In this prayer the jury are instructed that under the law the defendant had the right to use in the manufacture of preparations common alcohol, which is considered to be a little more than 5 per cent water and a little more than 94 per cent pure alcohol; that is to say, alcohol composed of 94.9 per cent pure alcohol and 5.1 per cent water; and in determining whether the statements on his carton and label regarding the quantity or proportion of alcohol contained in his preparation were either true or false, the jury shall consider that 5.1 per cent of the alcohol he used, if they shall find he used common alcohol, was composed of water.

I think that those two prayers contain all that I need say upon that question. You understand the evidence.

There is one other prayer on the subject of alcohol. I will read that:

"If the jury shall find from the evidence that the statement on the carton and label of the defendant's preparation concerning the quantity or proportion of the alcohol contained in such preparation was a true statement of the maximum or the average quantity or proportion of the alcohol contained in his preparation, such statement was in conformity with the law, and his carton and label was not misbranded so far as such statement was concerned."

These three prayers cover all that is necessary for me to say on that point.

I will read the other prayers granted, first taking up prayer No. 2 for the government:

"The jury are instructed as matter of law that if they find from the evidence beyond a reasonable doubt that the defendant, Robert N. Harper, on the 5th day of August, 1907, or at any time between the 1st day of January, 1907, and the filing of this information, in the District of Columbia, did manufacture a certain liquid medicine or preparation styled and designated 'Harper's Cuforhedake Brain Food' or 'Harper's Cuforhedake Brane Fude,' and did on the bottle, box, or circular thereof place the following statements, designs, and devices, or any one of them, 'Cuforhedake Brane Fude' or 'Cuforhedake Brain Food,' that said drug contained no poisonous ingredients of any kind; that said drug was a harm-

less relief'; 'that each ounce of said drug contained 30 per cent of alcohol'; and if the jury find beyond a reasonable doubt that the word 'Cuforhedake' means cure for headache, and that the said drug is not a cure for headache or that said drug contains poisonous ingredients of any kind, or that said drug was not a harmless relief, or that each ounce of said drug did not contain as the maximum quantity 30 per cent of alcohol, or that all or any of said statements were in any way false or misleading, then they shall find the defendant guilty as charged in the first count of the information; and if they further find that the said defendant, Harper, did sell and offer for sale, on the day and days aforesaid, the said drug to Frank T. Stone and S. Stuart Poole, then they shall find the defendant guilty on the fourth count of said information."

The fourth count, I believe, is a charge of selling. One charge is for making in the District of Columbia, and the other charge is for selling a misbranded article in the District of Columbia. The two are to be considered separately. If you believe that he sold a misbranded article then you will bring a verdict on the fourth count. If you believe that he misbranded in any of the ways claimed by the government beyond a reasonable doubt, then you shall bring in a verdict of guilty on the first count.

There is one other prayer for the government:

"A false statement within the meaning of the act of June 30, 1906, is any statement that is untrue, erroneous, not strictly in accordance with fact, or calculated in any way to deceive; a misleading statement within the meaning of said act is any statement that may in any way tend to lead a person wrongly, or misguide, or lead astray or into error, or cause to mistake, or delude or deceive; and if the jury find that any of the statements charged as false or misleading in respect to said drug, from any point of view, or from any aspect considered, may in any way reasonably be considered untrue, or not strictly in accordance with fact, or calculated in any way to deceive, or lead into error, or cause to mistake or be deceived, then the jury shall find that such statement or statements are false or misleading, and that said drug is misbranded."

In considering the expert testimony, a prayer was prepared, which was also read, but I will read it again:

"The jury are instructed that the evidence of the expert witnesses who have testified in this case is to be received and treated by them precisely as other testimony. The weight to be given to it by the jury is to be determined by the character, the capacity, the skill and experience, the opportunities for observation, and the state of mind of the experts themselves, as seen and heard and estimated by the jury, by the nature of the case, and all its developed facts."

In other words, I charge you, in substance, that in testing the evidence of experts you have the right to consider whether they have shown sufficient knowledge, and to consider their conduct upon the witness stand, everything about them that has occurred in your sight, and everything that they have given upon the witness stand, for you are the ones to determine the weight to be given to the testimony of experts or those who come to testify as experts.

The law presumes that a person charged with a crime is innocent until he is proved by competent evidence to be guilty. To the benefit of this presumption the defendant is entitled, and this presumption stands as his sufficient protection, unless it has been removed by evidence proving his guilt beyond a reasonable doubt. That, you gentlemen understand, has been charged you over and over again. The right of a defendant in a court of law in this country is that he stands before you as innocent until he is proven by competent evidence guilty beyond a reasonable doubt.

Here is another prayer granted for the defense:

"The jury are instructed that under the act under which this information is filed the defendant is not required to state on the label or package containing the preparation in question any of the ingredients contained therein except the quantities or proportions of acetanilid and alcohol."

While that is true, yet the statement upon the label of the proportion of those two ingredients, if there are other statements upon the carton or label, or other document a part of the carton, which are false and misleading, the fact of the statement of the two drugs would not take away the character of the misleading statements. For instance, the ordinary purchaser of such drugs at a drug store does not know the value or the effect of these several drugs, and if there is put upon the outside of the package the quantity of this drug, and at the same time a statement that there are no harmful ingredients in it, or no poisonous ingredients in it, the fact that the

label would show that there was a poisonous or harmful ingredient in it, if such were the fact, would not remove the liability to a penalty under this law, because it is the ordinary purchaser that we are dealing with. The ordinary purchaser does not know, except in some few instances of well known poisons, the nature of the various ingredients going into drugs. If there is that which is false or misleading upon any part of that which is sold accompanying the drug, he would be liable under the provisions of this act.

Here is a prayer granted to the defense which is somewhat on that line:

"The jury are instructed that the purpose of the act of June 30, 1906, was to prevent the public from being deceived or misled in the purchase of drugs, and that the defendant can not be found guilty of misbranding his preparation unless on the label, bottle, or package of his drug he make any false statements or such statements concerning the same as would naturally and reasonably deceive or mislead or tend to deceive or mislead."

The jury are further instructed that in order to convict the defendant in this case of the offenses charged in the information, or either of them, they must believe and find beyond a reasonable doubt that all or some one of the alleged false or misleading statements are or is false or misleading in some particular.

Another prayer:

"The jury are instructed that the burden of proof in this case is upon the prosecution, and before they can find the defendant guilty the evidence adduced must satisfy them beyond a reasonable doubt that the statements contained on the label or package of the defendant's preparation or the printed matter connected therewith or some one or more of said statements was or were false or is misleading."

That covers all the prayers.

Gentlemen, in considering this case you do not want to take into consideration the position or standing of the defendant. Every one that appears before the bar of this court stands on an equal plane, as far as the verdict of the jury is concerned. We are not trying Mr. Harper, the president of the American National Bank, or Mr. Harper, the president of the Chamber of Commerce, but we are trying here Robert N. Harper, a citizen of this district, and you gentlemen are sworn to try the case, standing between the defendant on one side and the United States on the other.

You have nothing to do with the question, as counsel have told you, of the penalty. You are here to determine the plain questions of fact that are presented.

If you find any one of the charges brought by the government in the first count against Mr. Harper, although you may find him not guilty on all the others, any one of them would be sufficient and would require you to bring in your verdict of guilty, because if he is guilty beyond a reasonable doubt upon any one of the charges of false or misleading statements coming under the word "misbranded," then he is guilty, because the law requires that when a man puts out to the general public a drug he shall put on that no statement, he shall put on that no label which is false or misleading in any particular. If you find that this has been done, that there is a false or misleading statement in any particular upon this preparation put out by Mr. Harper, then your verdict must be "Guilty."

If, however, you find that in no one of the points named has Mr. Harper made a statement which is false or misleading, then of course your verdict would be in favor of Mr. Harper and would be "Not guilty."

If you find him guilty upon the first count and find that he sold this article to the firm of Stone & Poole, then you would find him, in that connection, guilty on the fourth count. If, however, you find him not guilty on the first count, you must necessarily find him not guilty on the fourth count.

Mr. Tucker: Has your honor concluded?

The Court: Yes; unless there is something that counsel wants me to say further.

Mr. Tucker: What I want to say is this: Under the rule established by the court of appeals, where instructions are repeated in the charge of the court, it is necessary for the parties to reserve their exceptions again to the prayers, repeating their exceptions. I accordingly except, for the reasons I have stated, to the granting of each and every of the prayers granted on behalf of the prosecution, and to the refusal of the court to grant each and every of the prayers presented on behalf of the defense and refused, and to the modification of the court to such of the defendant's prayers as have been modified by the court; all on the grounds I have stated.

The Court: There was only one, I think.

Mr. Tucker: Only one, I think. I simply put it in the plural to cover any possibility.

I also object and reserve an exception to the language of the court in the charge relating to the subject of dosage, and in instructing the jury, in effect, that they should disregard the dosage as prescribed on the label of the defendant's bottle.

I also object and except to such part of the charge as stated to the jury that the ordinary purchaser does not know the nature of the ingredients in drugs, as a rule, on the ground that that is a matter for determination by the jury.

The Court: Gentlemen, take the case.

On March 12, 1908, the jury returned a verdict of guilty. On April 15, 1908, the court pronounced judgment and sentence upon the verdict as follows:

The Court: Gentlemen, I shall do in this case what I do not ordinarily do in a case which has been tried by a jury, and where the jury has found the defendant guilty, and that is, give reasons why I impose the sentence which I have determined to impose.

Before any controversy occurred in the newspapers, or in any other way, while the evidence and the facts in this case were very fresh in my mind, I studied over the question of the penalty that I ought to impose and made up my mind what that penalty ought to be. I see nothing in the evidence in the case at this time which ought to make me change the deliberate judgment which I formed at the time, after the verdict of the jury; and I shall carry out in my judgment the opinion I then formed for myself.

The penalty imposed upon a person found guilty of the violation of a law is for three purposes: First, as a punishment for committing the offense; secondly, to accomplish the reformation of the guilty party; and, third, to deter others from committing the same offense.

In this case, as to the first point, what is, as a matter of right and justice between the United States on one side and the defendant on the other, a proper punishment for the offense committed?

The defendant is a druggist—an expert. He has appeared in this court, in other cases, as such expert, testifying as to the effect and about the character of drugs. According to his own testimony, he is thoroughly qualified for giving such evidence. To be sure, for many years he had prepared and sold this preparation. It is true that up to the 1st of January of last year there was no law, as far as the court is advised, which would hinder him from making, selling, and branding the preparation as he did. Whether that law to which Mr. Baker referred would, or not, I am not advised. This law, under which this case was brought, was passed on the 30th of June, 1906. It went into effect six months afterwards, thus giving all parties an opportunity for changing their labels and their other printed matter, if their preparation was in any way misbranded. The law went into effect on the 1st day of January, 1907.

According to the evidence here, the defendant made no change in the complained of matter until this preparation was purchased by the government in August, eight months afterwards. He did not consult counsel until October, ten months afterwards; but, according to the evidence, during all those months he continued to make and to sell this preparation, and, according to the testimony of the many druggists who appeared in court, to sell in very large quantities. They purchased it from him in greater or less quantities, usually weekly.

During all of that period until October, the complained of labels were on the packages as sold. One of the complained of labels was the "Cuforhedake Brane Fude." As to the word "cure," as counsel know, I was with the defense on that question. The other one, "Brane Fude," and the other, also, that "this preparation contains no poisonous ingredients" and that it was "a harmless preparation," were, in my judgment, then as now a misbranding of this drug.

Whether or not it did contain poisonous ingredients Mr. Harper, an expert, knew. He could not have been mistaken. It did not require any advice from Professor Wiley, or from the Agricultural Department, to inform him, for many years an expert druggist, what was testified to by so many witnesses—that this did contain poisonous ingredients.

It was not, in my judgment, and as I charged the jury, a question of dosage. The question was, did it contain a poisonous ingredient, and was that a misbranding under the law? If it was, Mr. Harper must have known it; and he went on for ten months selling it with that misbranded, misleading statement on it. As to this, the witnesses for the defense, and among others Professor Hurd, the chemist, said more than once that the ingredients were poisonous ingredients, although they testified that, in the doses prescribed, it would not harm.

Yet here, upon his papers, and upon every bottle sold, was the statement, "This preparation contains no poisonous ingredients." It did not say that it would not be poisonous in the doses named. It did not say that there would be no harmful effects from the number of doses taken as prescribed; but it was an absolute statement which would tend to mislead an unprofessional person who might read that statement.

Now the offense, it seems to me, is a serious one because Mr. Harper must have known this. He could not help but know that these statements were misleading, were not true, and that the bottles did contain a poisonous ingredient. I therefore can not agree with counsel for the defendant that this was an accidental or, you may put it, an unintentional, technical violation of the law.

Now, with regard to these visits to the Agricultural Department. The Agricultural Department and its officers were right in refusing to construe the law. They were not a court. They were not, I assume, lawyers; and the matter was one for a court, and for the man who was himself manufacturing the drug, to determine whether or not the labels that he put upon the package were or were not misleading under the language of the law; and it was for the courts to determine afterwards what the statute meant and how it was to be construed. So with regard to that I can not concede that Mr. Harper is an innocent violator; a technical violator. He went on for eight months selling his bottles by the thousands, to everybody, with those misleading statements upon them; and it was only after the government sent the notice from the Department of Agriculture in October that he consulted counsel and changed his label.

Now concerning reformation. I do not think there is any need for my saying anything about that. I do not believe that Mr. Harper from this time on will put onto his labels or onto his bottles any such misleading statements. I think that that purpose of the law has been accomplished.

As to the deterrent effect upon others. I happen to know that during the whole of this trial there was one, and possibly there were more counsel from abroad in court, watching this case, having no part in it in any way. He was representing the Wholesale Drug Association, and he told me that his purpose was to notify the druggists in every part of the United States of the action of the court and of the charge made by the court upon the law, so that every one would be instructed upon the law. I therefore believe, with counsel for the defense, that as far as the general public is concerned and as far as the druggists are concerned, there has been full notice, and that they will be exceedingly careful as to violating this law in the future.

With regard to this case being a test case, I merely want to say one word. It does not strike me as having been a test case in the sense in which that word is usually used. A test case is one where there is a doubt about the meaning of the law, and counsel for the government and counsel for the defense get together to test the question, so that the courts may determine the law. I do not think that anything of that kind occurred in his case. The defendant was, after notice from the Agricultural Department, brought into court under this information. There was not a thing that would bring it within the ordinary meaning of a "test" case.

Now, coming back to the question of what the punishment should be. I do not think, this being the case under the law, and Mr. Harper having shown a willingness to change his label, although it was after October and after he had gone once or twice to the department before January—I do not think that I ought to impose a jail sentence.

This is the first case under this law. It is, in one sense, a test case, in that the law is for the first time construed by a court and a rule laid down which, if sustained by the court of appeals, will be the rule throughout the United States.

Therefore I think that the penalty imposed upon Mr. Harper should be the maximum money penalty. That is what I determined, as I said, immediately after the trial of the case and the verdict of the jury.

I shall therefore sentence the defendant, on the first count, to pay a fine of \$500, and in default to be imprisoned for ninety days in jail; on the fourth count to pay a fine of \$200, and in default to be imprisoned for sixty days in jail, to take effect upon the expiration of imprisonment in jail under sentence imposed on first count.

Motions by the defendant in arrest of judgment and for a new trial were severally made and overruled, and notice was given of appeal to the court of appeals of the District of Columbia. Subsequently the appeal was withdrawn and the fine paid.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

BREAD AND FLOUR IN SWEDEN.

Special Agent M. H. Davis furnishes an interesting report from Stockholm on the flour and grain trade of Sweden. The special agent intimates that trade with the United States would be promoted if the mills would deal directly with Swedish millers and importers instead of continuing relations that existed prior to the establishment of Sweden as an independent kingdom. The report follows:

The population of Sweden is not far from 5,500,000. Stockholm, the capital and largest city, with a population of 340,000, is the largest importing point, while Gottenborg, on the southwestern coast, with 190,000 inhabitants, is the greatest in volume of exports.

The consumption of wheat flour in Sweden is a matter of only moderate importance, but is believed to be increasing. Rye flour, or, more accurately speaking, coarse rye meal, is chiefly used for bread making. A considerable percentage of the wheat used is converted into a coarse or graham flour, which is, to a large extent, combined with the rye meal in making bread. The standard bread in Sweden, found on the tables of the working people, and seemingly always present on the tables of the best hotels and of the well to do, is a peculiar product. It is not a loaf. It is round, about the size of a dinner plate, and similar in thickness, and I am tempted to say nearly as hard. Apparently no yeast is used in its make-up. Being of coarse material, the color is dark. Though wholly uninviting to one used to white, spongy, flaky bread, and made more so to the average American taste by the presence of caraway seeds in profusion, yet to those accustomed to it, it is the staff of life. The people of the central and northern part of Sweden use mostly this kind of bread. In the south more of the softer dark breads are used. These may, as in the case of hard breads, be either all rye or a mixture of wheat and rye meals. White bread in loaves, as in America or Great Britain, is seldom used. The baking of higher grades of wheat flour aside from its use in pastry and cakes, is largely confined to the production of rolls or very small loaves of bread. That the use of white flour from wheat is increasing is evidenced by the imports and the increasing facilities of the Swedish mills for producing it.

A PRACTICAL ROTATION.

"I suppose you follow a system of rotation in your agricultural operations," casually observed the high-browed graduate of the modern agricultural college.

"Follow what kind of a system?" inquired honest, hard-handed Ezra.

"A scheme of rotation. That is, take that large field there; you put that to one purpose one year, another purpose the next year, and still differently the third year, and so on."

"Oh, yes, I see what your meanin'. Well, sir, last year we used the proceeds of that field to give Elizabeth her musical education; this year the proceeds went to pay boot in a horse trade that I had the honor of engineerin', and next year I intend that field shall give me a trip down to the city and build a new concrete smoke-house. After that I'm countin' on lettin' the youngest boy, Henry Absalom, farm the field on shares to kinder get his hands into the work."—Exchange.

INTERNAL REVENUE DECISIONS.

(T. D. 1433.)

Bottling of Spirits in Bond.

No foreign materials to be added.

Treasury Department,

OFFICE OF COMMISSIONER OF INTERNAL REVENUE,

Washington, D. C., November 13, 1908.

Sir—Yours of 11th instant is received stating that you are about to commence to bottle a lot of whisky for your trade, and that several of your customers desire an addition of a little caramel for coloring and a small portion of rock-candy sirup before it is bottled in bond. These parties state that without the caramel and sirup the proof of 100 per cent is too fiery for their trade. You ask if this can be done.

In reply you are advised that the addition of material desired is expressly prohibited by law. The act of March 3, 1897, authorizing the bottling of spirits in bond, provides:

"That for convenience in such process any number of packages of spirits of the same kind, differing only in proof, but produced at the same distillery by the same distiller, may be mingled together in a cistern provided for that purpose, but nothing herein shall authorize or permit any mingling of different products or of the same products of different distilling seasons, or the addition or subtraction of any substance or material or the application of any method or process to alter or change in any way the original condition or character of the product except as herein authorized.

JOHN G. CAPERS, *Commissioner.*

Mr. ———, *Baltimore, Md.*

There Is

CLEANLINESS, HEALTH INSURANCE,
ECONOMY AND CONVENIENCE IN



Our **PET**

BRAND

Evaporated Milk

The Standard of the World
WINS AND HOLDS TRADE

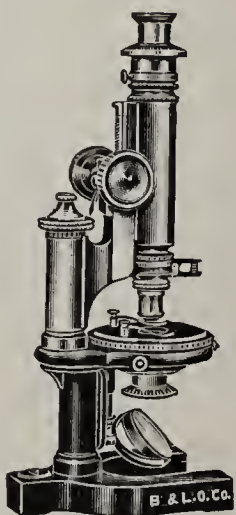
on account of its Superior Quality.

Prepared by

HELVETIA MILK CONDENSING CO.

Highland, Illinois

ORIGINATORS OF EVAPORATED MILK



Bausch & Lomb Chamot Chemical Microscope

THIS Microscope, designed for chemical examinations of all kinds, is made after the specifications of Professor Chamot, of Cornell University.

¶ The stage is circular and revolving, with vulcanite top and rectangular graduations. The circumference is graduated in degrees and is provided with centering screws. The sub-stage is adjustable vertically by quick-acting six-threaded screw, having extra long range. Polarizer and analyzer are both medium-size Nicol's prisms. Price, complete, \$75.00.

¶ This microscope stand can be equipped for all kinds of microscopical work.

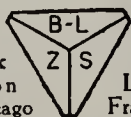
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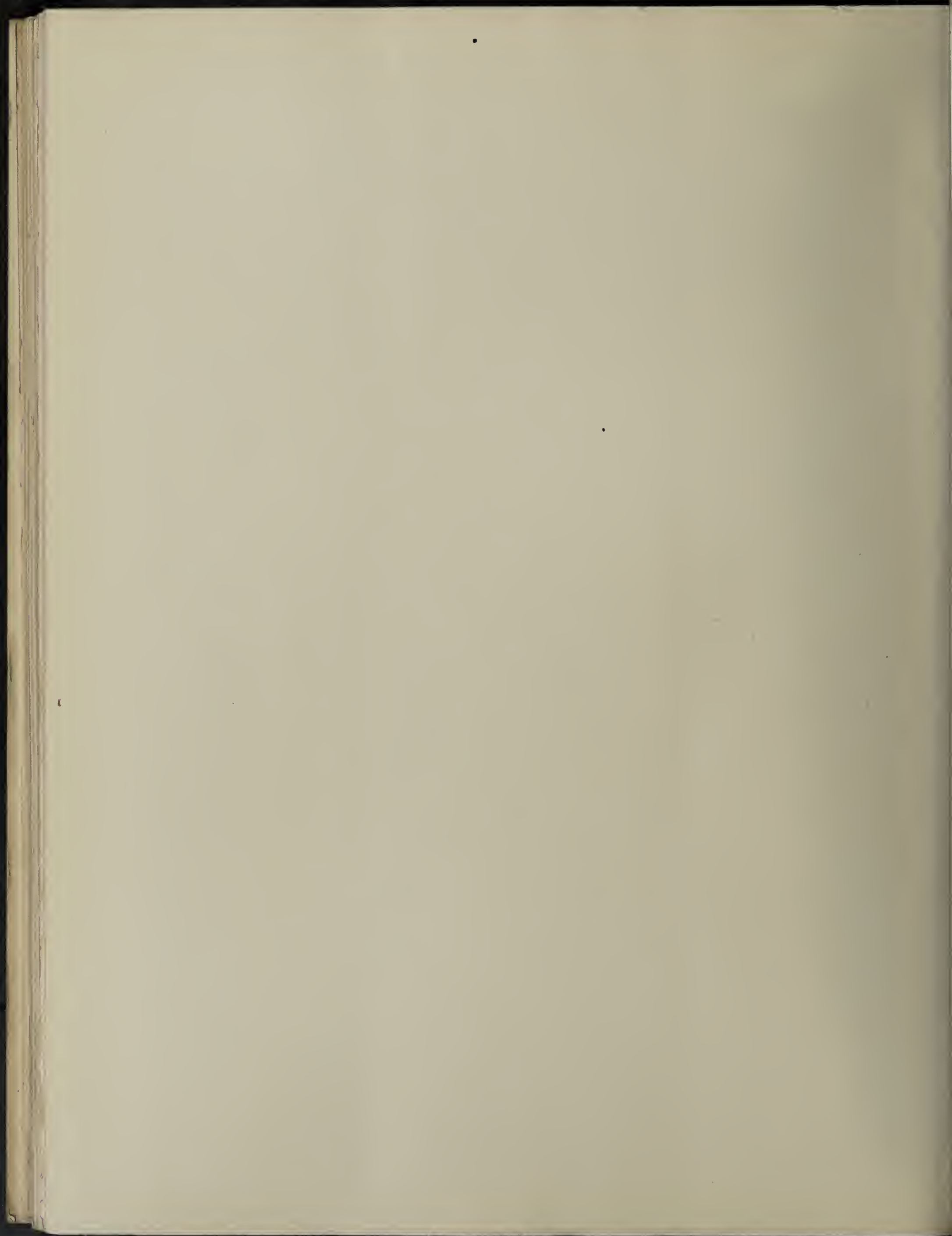


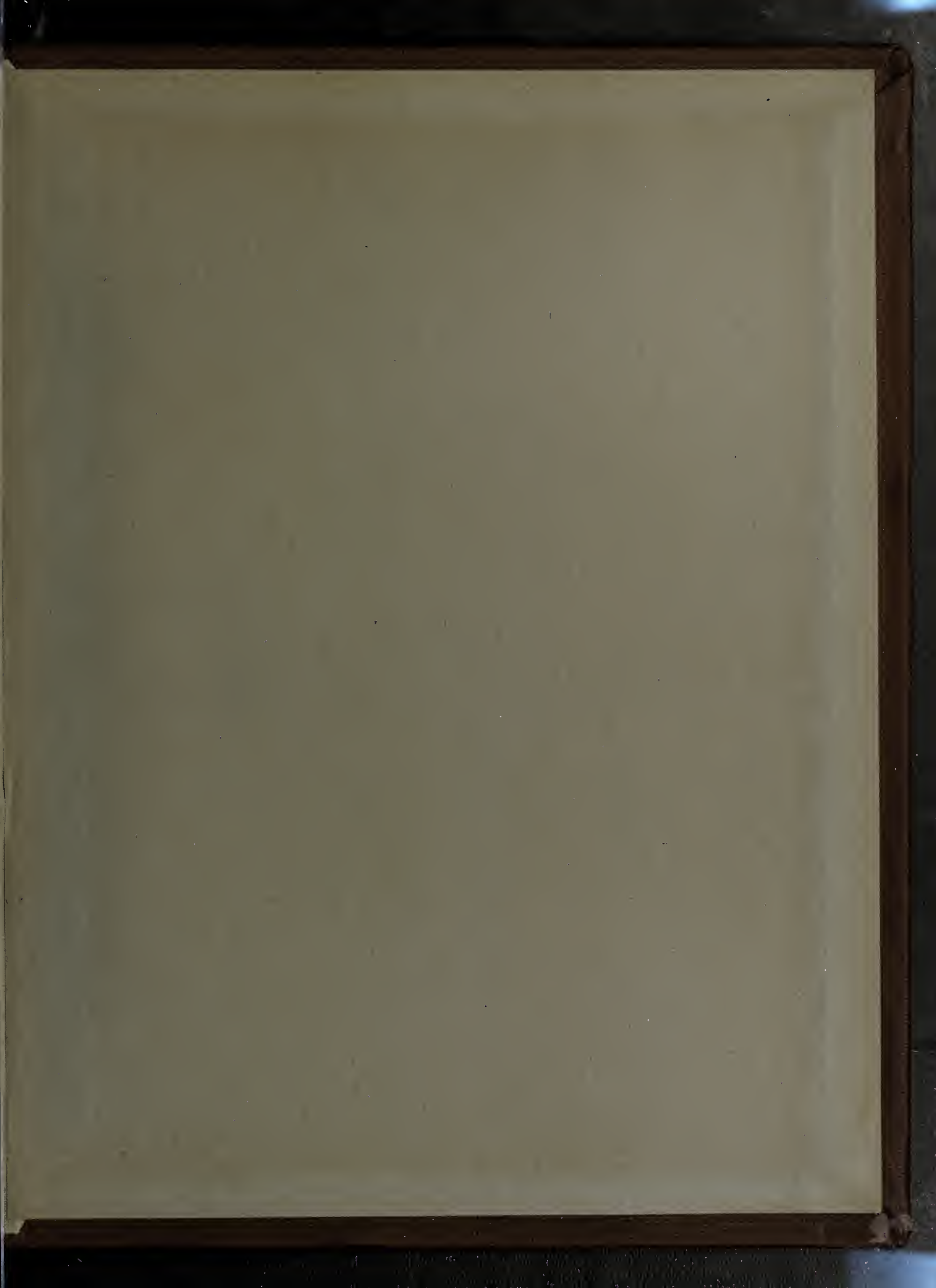
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